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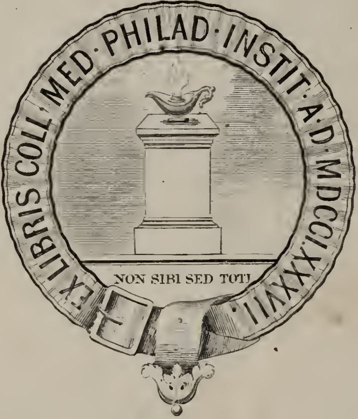
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THE

CINCINNATI

MEDICAL NEWS.

EDITED BY

J. A. THACKER, A.M., M.D., F. R. M. S.-LOND.

Fellow of American Academy of Medicine, etc.

VOL. XVII., Old Series. 1884. VOL. XIII., New Series.

CINCINNATI:

PUBLISHED BY J. A. THACKER.

Printed by the Elm Street Printing Company, Nos. 176 & 178 Elm Street.

6/24/81

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THE

CINCINNATI MEDICAL NEWS.

VOL. XVII. No. 193. Old Series. | JANUARY, 1884. | VOL. XIII. No. 1. New Series.

Original Contributions.

Translations from Our Foreign Exchanges.

Translated for MEDICAL NEWS, from the French, by Dr. Illowy, Cincinnati, Ohio.

FEIGNED URINARY GRAVEL.

FEIGNED urinary gravel has been observed for a long time; and although not a frequent form of simulation, it has been possible for Brongniart to mention twenty-two cases reported by different authors. In his communication to the Academy of Medicine, May 8, 1883, the author remarks that, with the exception of five or six cases observed in young boys, all the other cases were observed in women or young girls. This permits of the conclusion that this form of simulation is more especially observed in women. The motive is the same as for all simulation, viz., laziness, the desire to excite interest or commiseration; to this must be added luxurious living, especially in the female. In the latter, hysteria may also be invoked as a cause, particularly the nephralgique form. Hysteria determines very frequently most irresistible impulses to simulation, but it frequently happens that patients suffering great pain in the region of the kidneys, and to avoid the bad sounding epithet of "hysterical," prefer to call their pains nephritic colic, and this induces them to show false gravel. Sand has been employed for this purpose, fragments of bones, fragments of stone, of brick, small pieces of lead and crumbs of bread. The author concludes that it would be a good precaution to take, when one is called to attend to a case of nephritic colic in a woman or young boy, to make a careful analysis of the urine and of the gravel.

SUDDEN COOLING OF THE GLOBUS OCULI AS A CAUSE OF ABSCESS OF THE CORNEA.

Dr. Cousserant publishes in the *G. de Hopitäux* two cases of abscess of the cornea which do not seem to have arisen from any other cause than a sudden cooling. In the first case, a woman, sixty-nine years of age plunged her face into a tub of very cold water on returning from her work in the field. She was seized with an extended ulcer of the cornea, which resulted in a perforation of the eye. The second case was that of a young, vigorous butcher, who, being in swimming, plunged his head into a spring. In the evening he was seized with fever and vomiting. At the end of two days there was purulent infiltration of a small segment of the cornea. Having his attention directed to this point by these two cases, M. Cousserant recollects having seen in his hospital clinic, during the severe winters, very severe cases of corneal abscesses. He believes that the great majority of opthalmias, called ''opthalmias of harvesters,'' are not due to a trauma, in most cases indiscoverable, but to cold, which is easily explained when the hydra-therapeutic practices of country people during the summer heat is known.

TREATMENT OF DIPHTHERIA.

M. Mollereau communicates to the Society of Practical Medicine a case of diphtheria cured by the use of bromine water (eau bromie), first proposed by Dr. Teste in 1877. The subject of his observation was his own son, who, thanks to the treatment, was convalescent at the end of four days from a diphtheria accompanied by exudation and a considerable submaxillary engorgement. This is the method formulated by Dr. Teste:

1. Have everything so prepared that you have at all times a glass of water handy.
2. Every hour in diphtheria, and every quarter of an hour in croup, have the patient take one, two, or even three drops of bromine water in a tablespoonful, or, if preferred, half a tablespoonful, of sugar water.
3. Increase the interval or reduce the dose after several hours, but never leave a greater interval than two hours.
4. Use a glass spoon or a liqueur glass.
5. Diet absolutely tonic.
6. Gargarisms of vinegar and water or salt water.

7. In the chamber of the patient place a saucer containing a tablespoonful of bromine water—this is renewed twice in the twenty-four hours.

Avoid giving milk or farinaceous food during the treatment.

The general phenomena improve rapidly under this treatment. At the end of eighteen to twenty hours the false membrane begins to become detached.

The bromine water must be kept in a black glass vial and in a dark place.—*Gaz. Medical de Nantes.*

ANTISYPHILITIC PILLS (LABOULENE).

℞	Ung. hydrarg-fortius	4 grmms
	Sapon. amygdalin	2 grmms
	Extr. chincona	1 grmm
	Gummous extract of opium	1 grmm
	Althea pulv	2.S.

Make 40 pills—25 ctgrm (about 4 grs.) each.

These pills are to replace those of Sedillot, and, owing to the addition of the chinchona and opium, are better tolerated by the stomach. Their efficaciousness is remarkable in the precocious syphilides, or when it is necessary to act quickly. The dose is from one to three for men and one to two for women. If salivation should ensue, it is combated by means of chlorate of potash.—*Gaz. Medical de Nantes.*

CARBOLIZED SOLUTION FOR INHALATION.

℞	Phenic (carbol.) acid	1 grmm
	Aq. distill.	100 grmms

Ft. solut. In cases of phthisis pulmonalis with cavities, a third of a glassful is put into an atomizer and the patient directed to aspire largely the atomized fluid, so as to have it penetrate into the bronchial tubes. This is repeated three times per day. The inflammation of the respiratory tract is soothed and expectoration becomes easy.—*Union Med. G. M. de N.*

NAPELINE IN FACIAL NEURALGIA.

Dr. Groynot reports in the *Bulletin de Therapeutic*, a case of facial neuralgia of three years' standing, in a woman twen-ty-two years of age. During the period of her suffering, various remedies were tried, amongst others, the crystallized aconitine of Duguesnel, (an article highly lauded by M. Laborde for facial neuralgia,—Tr.) but all proved of no avail. Dr. Groynot being called to attend, prescribed the following pill:

℞ Napelline, . .	iiss milligrammes.
Excipient, . . .	g. s.

Make one granule. Dispense twenty such granules.

Sig.—1 granule every 2 hours.

The first day the patient took ten of these granules. The next day she was cured, but was directed to take 4 granules that day, and two the next.

Two months thereafter the patient had another attack, and of her own accord took eight granules. Since then she has been perfectly well.—*Tribune Medicale.*

ALUMINIUM IN TUBERCULOSIS.

According to Dr. Pick, the preparations of alum constitute the most efficacious remedies against tdberculosis. This assertion of the author is based on experimental and clinical obscrvations. As a typical case, Dr. Pick relates the history of a case of tuberculous infiltration of the apices of both lungs, where the medication aboue mentioned, arrested the pulmonary lesion and dissipated all the morbid symptoms. The following is the formula:

℞ Aluminium, (in metallic state),	8 grammes.
Alum hydrate, . .	5 "
Calcis carbonat., . .	5 "
Gum. Tragacanth, . .	g. s.

M. Divide into 60 pills. 1 pill, 3 times a day, two hours after each meal. When the fever has fallen, the sweating arrrested and the appetite has returned, Dr. Pick directs the following formula:

℞ Aluminium, . . .	8 grammes.
Extr. calsis malat.,* . .	5 "
Extr. taraxac., . . .	g. s.

M. Make into 60 pills. 6 pills per day, to be taken in 3 doses.—*Progres Medicale.*

TREATMENT OF PORRIGO DECALVANS (ALOPECIA).

M. Lailler prohibits epilation, which is useless for him, as he does not believe in the existence of a parasite. He has

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Extrait de Malate de chang.

the head shaved frequently, at least twice per week, and if it is the beard that is attacked, he has it shaved every day, then he directs inunctions night and morning, with the following mixtures:

℞	Balsam of fioraventi,	100	grammes.
	Camphorated alcohol,	100	"
	Tinct. pyretteri,	100	"
	Liquid ammonia,	6	"

M. Or the following:

℞	Balsam fioraventi,	100	grammes.
	Camphorated alcohol,	100	"
	Tinct. cantharid.,	25 to 30	grammes.

M. These lotions are of an agreeable odor and do not soil the linen. For the beard it may be sufficient to rub in Eau de Cologne.—*Progres Medicale.*

TREATMENT OF VULVAR HERPES WITH PRURITUS.

Dr. Bournonville directs the parts to be sponged several times a day with the following mixture:

℞	Tannin,	15	grammes.
	Neutral glycerine,	100	"
	Ay. destill.,	200	"
	Essent. menth.,	v	gra.

M. Leave this dry, (not wiping it off) and then powder freely the genitals with potato flour. If the herpes form a wound, the parts can be freely powdered with powdered tannin. The most obstinate forms will yield to this treatment after 3 or 4 days.—*Le Med. Pract. Progres Medicale.*

WARTS TREATED WITH BLACK SOAP (SAVON NOIR).

Dr. Vidal employs the following method for warts of the hands. He spreads black soap on on strong paper or a piece of flannel, lays this over the wart and fastens the whole with a bandage, and leaves it there through the night, and through the day if possible, as it cures more rapidly. After two weeks of these applications, the wart is softened and it requires but a little scraping to make it disappear rapidly. M. Vidal has always succeeded when he has been able to employ this method, which is easier of application and more certain than cauterization.—*Progres Medicale.*

VARIOLA HEMORRHAGICA—ITS TREATMENT BY ESSENT. TEREBINTH.

Black small-pox and purpura variolica (variolous purpura) are the most terrible complications of small-pox, and make the most victims during an epidemic. For a long time, physicians have been searching for a remedy that shall have the power to attenuate the effects of black small-pox and variolous purpura. All the astringents, all the antiseptics, have been tried on numerous occasions. Carbolic acid, the ether-opium treatment, pilocarpine, ergotine, Jaborandi prolonged baths, have not given the results expected.

Dr. Jenna, of Buenos Ayres, has attempted the treatment of black small-pox by means of the spirits of turpentine, and has had three cures resulting from this treatment; a young man, a tuberculous woman, and an old man aged 68 years. Conjointly with the Jaborandi or pilocarpine, the patients took 6 grammes of essence of turpentine in the 24 hours. The essence of turpentine administered internally, suppresses the hæmaturia, which in the majority of cases observed, is the first hemorrhagic symptom observed in black small-pox or variolous purpura. If there is hæmatemesis or gastric intolerance, administer ice, or what is still better, iced infusion of Jaborandi.

A malady of such short duration, naturally requires, that the treatment be instituted as soon as possible, and as soon as the diagnosis has been established, without waiting for other characteristics so marked in this affection. In many cases, the hemorrhages have been arrested, and life prolonged to the period of desquamation, but almost all have died of hypostatic pneumonia.

This complication is frequently observed in small-pox, no matter how benign it may be. In cases of recovery, the treatment has been continued—the dose gradually diminished—until convalescence has been fully established. It is curious to observe the progress of the eruption, which, without being of any particular manner, dries up slowly and exfoliates without leaving any cicatrices. The formula employed is as follows:

℞ Emulsion of gum,	. .	120 grammes.
Essence of turpentiue,	.	6 "
Syrup of gooseberries,	. .	30 "
Essence of peppermint,	.	1 drop.

M, A tablespoonful every hour; the turpentine may also be administered in the form of pearls.—*Progres Medicale.*

A Case of Amputation of the Breast, with Remarks.

Read before the Philadelphia County Medical Society, September 12, 1883.

BY HENRY LEAMAN, M. D.

Reported for CINCINNATI MEDICAL NEWS.

MRS. J. J. W., æt. 48, married twenty-nine years, is the mother of eight children still living, and has been the recipient of ten severe miscarriages. She presented herself at my office on the first of September, 1882, complaining of a tumor in her breast, which she had noticed for the first time three months previous. At that time a small pimple upon the surface of the skin had served to call her attention to the swelling that lay beneath in the substance of her breast. Examination showed a tender enlargement, the size of an English walnut, situated deeply in the inner, lower quarter of the left breast. She stated that during the past week she had experienced for the first time frequent, sharp, retracting pains shooting through the nipple. Menstruation had ceased with her six years previous, without giving rise to any trouble. She now had no *cachexia*, and was apparently in her usual health.

On the eighteenth of the same month she called again; the growth had not perceptibly increased, but she spoke of having pain in her breast bone. Amputation of the breast was recommended. The effect of this advice was to send her upon a blind pilgrimage through the desert of therapeutics. Now electricity, now pow-wowing, now homœopathy—each in its turn was tried with results equally gratifying to the patient.

The *ignis fatuus* which I had lighted brought her again to me on the twenty-third of April, 1883. The tumor then was of an oval shape, and about four inches in length. From its inner anterior surface were extending two cornua, slightly ulcerated, about three-fourths of an inch in length. The skin over the tumor was deeply congested, red and inflamed, as was also the skin for several inches around. The tumor in front rested upon the cartilages of the rib, but was movable. The glands in the axilla were slightly involved. With the assistance of Drs. Hatfield, Brubaker, Welch and R. Leaman, the breast was removed under the spray, on April 26, 1883, and Lister's dressing applied.

One nodule of hardness was removed from the axilla.

At the sternal end the cut surfaces could not be approximated within two inches, owing to the necessary ablation of tissue.

April 27.—Patient doing well. Temp., 99½°; pulse, 112, at 10 A. M.

April 28.—Temp., 99°; pulse, 104, at 10 A. M.

The breast was dressed under the spray at 10 P. M. Temp., 99°; pulse, 104.

April 29.—Temp., 98½°; pulse, 96, at 10 A. M.

April 30.—Temp., 99½°; pulse, 96, at 10 A. M.

May 1.—Temp., 98½°; pulse, 92.

May 2.—Temp., 97°; pulse, 84; dressed the wound the second time under the spray; the drainage tube was removed, as were also some of the sutures.

May 3.—Temp., 98°; pulse, 80, at 4 P. M.

May 4.—Temp., 97°; pulse, 100. Dressed again under spray.

May 6.—Dressed under spray; removed the sutures and two ligatures. Temp., 98°; pulse, 104.

May 7.—Temp., 98°; pulse, 104. Patient sitting up.

May 8.—The posterior three-fourths of the incision entirely healed and healthy. The anterior one-fourth was perfectly healthy and granulating rapidly. All sutures and the remaining ligatures were removed.

On and after May 10 the wound was dressed with iodoform, cosmoline and salicylated cotton, under which treatment the wound rapidly healed. Dr. Brubaker made a histological study of the growth, and pronounced it carcinoma.

As soon as the cicatrix was complete, neuralgic pains began to be felt in the left arm, right leg and body. At first the cicatrix remained perfectly healthy in appearance. Subsequently, however, a nodule appeared in the lower part of the neck behind the left sterno clavicular articulation. Next, the left axilla, the posterior and healthy part of the cicatrix, both began to show hardening. At present there is a chain of nodules along the whole cicatrix—one large and painful is felt over the cartilage of the third rib on the left side. The left axilla is but one hard pyramid. The left hand and arm are swollen. A pain of a lancinating, burning character is referred to the left scapula, arm and axilla, occasionally shooting in the course of the incision.

The apparent freedom from involvement of the axillary glands at the time of the operation, and the rapid development of the disease after the healing of the cicatrix, would seem to point to the idea that the original tumor was but a local cnidus for a constitutional trouble, and that this having been destroyed, a general efflorescence of the disease ensued. A kindred idea is found in the popular belief that a manifestation of phthisis may follow the operation for the cure of anal fistule. The observations on the change of life in women would seem also to bear upon the same point.

Dr. Brubaker's Analysis of the Tumor.—"Upon section the tumor is firm and hard, and presents a white, glistening surface, from which can be scraped a small quantity of fluid matter. Under the microscope the connective tissue stroma is seen to be abundantly developed; in its meshes are developed epithelial cells, some of which have undergone degeneration. In some situations the cells are arranged in a linear manner, whilst in others they form groups or nests."

NOTE ON HYDRARGYRUM FORMAMIDATUM.

Some accounts of this preparation have appeared in recent journals. Towards the close of last year, Prof. Liebreich proposed, in a meeting of the Berlin Medical Society, a new drug for the treatment of syphilis by the hypodermic method Chemically this drug belongs to the amide group. Liebreich was led to use it from the fact that the ordinary amides of the body, of which urea is the principal one, are eliminated in an undecomposed state. When, however, the amide is in combination with a metal, decomposition occurs, and the metal is reduced and deposited. Liebreich found, by actual experiment, that this statement is true of mercury. It is supposed that the formamidated mercury, after hypodermic injection, undergoes decomposition, and that the metal mercury is set free in the tissues. The preparation is soluble in water, of neutral reaction, does not coagulate albumen, is not precipitated by caustic soda, and the presence of mercury can be demonstrated by potassium sulphide. It produces its effects very surely and rapidly. Liebreich regards it as the best remedy known for the hypodermic treatment of syphilis by mercury, as it is but little liable to excite local troubles or salivation. Later (*Med. Times and Gazette*, July 7, 1883), we find that Prof. Zeissel, in Vienna, after trial of this remedy in fifteen cases of syphilis, was well satisfied with the results. In three of these cases salivation was produced. Some pain followed its injection, which was not, however, so severe as that following the hypodermic use of mercuric chloride. Twenty injections was the maximum number required to disperse the manifestations, even in severe cases.

Dr. Schacht, of Berlin (*New Remedies*, September, 1883), writes as follows:

"Formamide is a colorless liquid, boiling at about 195° C., which can be distilled without decomposition only in vacuo. It is prepared by acting upon formate of ethyl by ammonia. When pure it is neutral, but easily becomes acid.

"If a *concentrated* solution of formamide be *boiled* with precipitated mercuric oxide, decomposition ensues, and metallic mercury is separated.

"On the other hand, if a *dilute* solution of formamide be *warmed* on the water-bath with precipitated mercuric oxide, a clear, colorless solution results, in which soda (hydrate of sodium) produces *no* precipitate. Sulphide of ammonium, however, precipitates the mercury as sulphide, both from the formamide of mercury and from mercuric chloride. Solution of albumen precipitated by the latter salt, but *not* by the formamide.

"Formamide of mercury is prepared in the following manner: 10 to 13 grms. of freshly precipitated, completely washed, and still moist mercuric oxide are gently warmed with a little water in a porcelain capsule, with gradual addition of 10 grms. of formamide. As soon as solution has taken place, the resulting colorless liquid is filtered into a litre-flask, and the latter filled to the litre-mark with distilled water. Each cubic centimetre contains 0·01 grm. of mercury, which is the quantity representing *one* hypodermic dose. Formamide of mercury keeps well in brown-colored bottles, and should also be dispensed in these."

In a note from Vienna (*Med. News*, October 13, 1883), it is stated that Prof. Neumann is now trying hydrargyrum formamidatum on a large scale as an anti-syphilitic. It is used hypodermically in doses of 1 c. c. It acts with far greater efficacy upon the recent efflorescences than upon the later manifestations. Pain of great severity and active local inflammatory troubles have resulted in Neumann's cases.

The preparation which I exhibit, made by Merck, of Darmstadt, is an one per cent. aqueous solution, and the dose of it is from half to one ordinary hypodermic syringeful.

It has not been possible to obtain this drug in this city until the present time. I would be glad to place the specimen which is exhibited, in the hands of any member of the Society who may desire to make a trial of it chemically.—*James C. Wilson, M. D.*

Eye Symptoms and Conditions in Bright's Disease.

Read before the Philadelphia County Medical Society, December 19, 1883.

BY WM. S. LITTLE, M. D.

Reported for CINCINNATI MEDICAL NEWS.

AMONG nine hundred and eleven cases of Bright's disease reported by different observers, changes in the retina have been observed to be associated with the kidney affection, in one hundred and eighty-five of these recorded cases; these statistics show that twenty per cent. of the cases of Bright's disease have internal eye symptoms. The statistics have varied with the several observers; the lowest average exhibiting retinitis present in 11·46 per cent., the highest in 30·15 per cent. of the cases of Bright's disease. A more exact and larger average than twenty per cent. can only be derived from a study of a larger number of cases of Bright's disease with retinitis than have as yet been recorded. The known average of twenty per cent. is sufficient to stimulate observation, and enables us to include eye symptoms among the other various manifestations of the disease under consideration, as they are exhibited by symptoms arising in other important organs and tissues of the body. The recognition of Bright's disease from lesions in the eye, in a case already diagnosed from symptoms in other organs, is not of so much importance for diagnosis, as it is a help in forming a prognosis; nor does the condition existing in the eye demand the therapeutics of special medicine.

A sufficient number of cases, however, are seen in an ophthalmic hospital, having no other symptom of Bright's disease apparent than impaired vision, which the ophthalmoscope shows is due to changes in the retina or of the nerve from disease of the kidney; or it is revealed in cases where vision is good, other ocular conditions being treated, so that in this class of cases the recognition of the lesion becomes important as a means of diagnosis.

The ophthalmic physician will diagnose Bright's disease by means of the ophthalmoscope, almost as frequently among the cases he is called to treat, as the lesion will be found to exist in cases where the eye is thus examined, for additional evidence in already diagnosed cases.

As a pathological change can be seen in the eye-ground during life, as can not be so well viewed in other parts of the body, the observation of the lesion associated with Bright's disease, or of other diseases, as they are exhibited in the eye, are very interesting and instructive.

Externally, the puffy lower lid is the only symptom, and before Bright's time, it was the first evidence of a more general anasarca, and it was looked upon as a symptom of dropsy, before the kidney was known to be the organ producing the condition. In very rare cases exophthalmus occurs from hemorrhage into the capsule of tenon, due to the breaking down of the orbital vessels or an excess of serum in the orbit.

With dropsy following scarlet fever, as well as that accompanying the act of gestation and the puerperal state in women, some internal affection of the eye, impairing vision, was known to exist, the same as was later known to be present in dropsy associated with kidney disease, from other causes, in both sexes alike.

Prior to the use of the ophthalmoscope, and even before Bright had connected the lesion in the kidney with dropsy, had amblyopia, or even total blindness, been a symptom of dropsy accepted by the profession. In 1836, Bright observed amaurosis to occur early in kidney disease, and to be a pronounced symptom; in some cases, fatal brain complication soon following. Landouzy, in 1849, found albuminuria present in these cases of amaurosis. Turck, in 1850, observed fatty degeneration in the retina, and this was corroborated later by Virchow and Heymann. Changes in the choroid, as well as in the retina, were recognized by Muller in 1857.

The vitreous becomes involved from hemorrhages of the retinal or choroidal vessels, detachment of the retina sometimes occurring; cataract may result, and a general disorganization of the eyeball follow. The contents of the orbit may be involved as already described.

Helmholtz's invention of the ophthalmoscope afforded a means of recognizing the internal parts of the eye; in this disease it was of great value, revealing a picture to supplant such a vague term as amaurosis. General medicine has derived a large share of benefit from what the ophthalmoscope enables us to see in an eye affected with general disease; the decided and brilliant picture that was presented to view, due to kidney trouble, has perhaps done more to advance the use of the instrument than the study of any lesion in the eye limited to it alone, or in any lesion that co-exists with general disease. In 1856, Heymann made the first observation of the lesion with the instrument, and in 1859, Liebreich presented in a colored lithograph the characteristic picture of retinitis albuminurica, now so familiar; since then the atlases of Mauthner, Jaeger, Allbutt and Magnus have shown the picture of the lesion in the retina, and optic nerve in all its phases. Mr. Hulke, of London, in 1866, found neuro-retinitis present in the disease. Leber's article in *Handbuch der gesammten Augenheilkunde*, vol. 2, p. 572, gives an elaborate account of retinitis albuminurica or nephritica; nor must we be forgetful of the valuable article on "Retinitis in Bright's Disease," by Prof. Wm. Norris, in the work on "Bright's Disease and Diabetes," by Prof. James Tyson.

Retinitis, generally symmetrical, if not always so, appears in all forms of kidney disease, while it is principally associated with the chronic disease of the cirrhotic kidney. Even though symmetrical, its presence is not always known to the patient; especially is this so, as long as the region of the macula lutea in the retina is not affected, so as to produce a central scotoma; lesions near the nerve and peripheral parts of the retina are not so productive of recognizable scotoma in the field of vision. These cases do not have the restricted visual field and rarely loss of color sense that belongs to optic nerve and brain troubles or contracted field of glaucoma. The symptoms may correspond to those of retinitis from any other cause; flashes of of light, color sensations, dread of light, impaired vision, to total blindness.

The ophthalmoscopic examination may only reveal the lesion, the patient being ignorant of it, and not observing the gradual change; such a case I saw recently, the macula not involved, but very rude lesions elsewhere; the case was chronic, and in the last stages of the disease, with a fatal prognosis. The picture of this form of retinitis is a decided one, as a rule; when the changes are slight, it is uniform, though at times a differential diagnosis is required from the conditions of the optic nerve and retina, due to intracranial disease or to pernicious anæmia.

While the lesions occur generally near the optic nerve and to the temporal side, the nerve itself is not implicated to the degree that it might be expected from the picture it presents; the separate spots in the retina finally coalesce, approaching the disc, and involving it; in other cases they surround the region of the fovea centralis, and are much smaller. They may occur anywhere in the retina, varying in size; the shape is somewhat quadrilateral, but may vary as they progress; they present a white appearance. The tissue near the disc and the disc itself appear striated; spots of hemorrhage are found from rupture of retina or choroidal vessels, opacities in the vitreous are seen. The state of pigmentation is the latest. In chronic cases the color of the fundus is peculiarly yellow, and the character of the picture is at times very much like the neuro-retinitis of brain disease or pernicious anæmia.

The changes result from the hyperæmia and infiltration of the tissue, fatty degeneration and atrophy producing changes in the blood-vessels with hemorrhage; a fatty deposit in the retinal tissue, the fibres of the retina become sclerosed and pigmentation follows.

The optic nerve is not seriously involved, though gray degeneration may exist, and numerous amyloid bodies may be seen with the microscope. The retina does not always present all the stages described; the kidney disease being amenable to treatment, the retina may not undergo any further change; where it is chronic, a like progression ensues in the retina. Marked lesions at times disappear, leaving only a slight trace. The hemorrhagic state is more severe, the sight not only being lost, but the patient's life endangered.

During gestation the same picture exists, the optic nerve may be more seriously involved. A case recently seen, and having uræmic symptoms, being unconscious two weeks prior to the delivery of the child, it being born dead, had complete atrophy of one optic nerve with retinal lesions extensive; the other nerve partially affected and slight retinal changes, patient almost entirely blind. In another case, with convulsions, only slight changes in each eye near the fovea. In succeeding pregnancies the conditions may arise again, producing more serious changes in the retina.

The prognosis, as far as the vision is concerned, is serious, when the region of the yellow spot is encroached upon, and yet fair vision may remain after subsidence of the disease.

Can a prognosis as to the duration of the disease or to its

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fatality be derived from the eye symptoms? Only in the chronic stages of the disease, when retinal hemorrhages are extensive and repeated, the heart being diseased. Traube considered the heart the immediate cause of these retinal hemorrhages; but they exist in cases without heart trouble, and in other diseases of the system, and in intraocular conditions. Brain symptoms soon follow in these severe types of retinitis; in chronic kidney disease a general hemorrhagic condition being developed, or uræmia may ensue. In the acute forms of Bright's disease no prognosis of any value can be formed from the eye symptoms, though severe.

As to the treatment of the eye in this disease, what renders the disease of the kidney controllable, is only of advantage to the retina; leeching may be useful, if the patient is not too anæmic. For the vitreous opacities, in cases where the disease is under control and the acute condition of the eye abated, electricity is of considerable value, much more so than any plan of medication.

The microscope shows a sclerosis of the retinal fibres, the walls of the blood-vessels degenerated, fatty deposits along the fibres and in the layers of the retina, also in places a pigmentation; the choroidal vessels are implicated as well.

Uræmic amaurosis is rare, Wagner finding one case in one hundred and fifty-three of Bright's disease. Graeffe found two cases in thirty-two cases of albuminuric retinitis; it presents no retinal change that is recognizable.

As yet we can not answer why the retinal changes occur with disease of the kidney. Does the structure of the retina and its proximity to a highly vascular tissue account for it?

Selections.

The Ætiology, Pathology and Treatment of Hæmorrhoids.

BY JOHN HARVEY GIRDNER, M. D.

The last six to eight inches of the large intestine composes the rectum, and, like the remainder of the gut, is made up of four coats. If we remove a healthy rectum from a body recently dead and make a section through its walls in the long diameter of the gut, we shall find that the cut edges present the following characteristics: The most external of the four layers forming the wall is a serous membrane, derived from the peritonæum; the next layer we come to, passing inward, is the muscular, formed of both longitudinal and circular fibers; the third is the cellular membrane, composed of connective tissue, showing in its midst the hæmorrhoidal vessels and nerves, and serving to connect the most internal or mucous layer with the muscular. The internal or lining membrane of the gut differs in no essentials from other mucous membranes so far as its histological anatomy is concerned. The mucous layer is, however, more abundant than any of the others; that is, if the mucous membrane be dissected from a segment of the gut of a known length, it will be found to be longer and wider when compared with the remaining layers from which it has just been removed and which it formerly fitted; in the normal condition this redundancy of the mucous layer of the rectum is compensated for by the former being thrown into folds, and these folds are both transverse and longitudinal, the latter especially in the neighborhood of the spincter ani. Now, the interposition of the loose cellular tissue between the muscular and this mucous layer permits the latter to be thrown into folds, to be distended, and to slide or be rolled on the muscular coat with facility.

Thus constructed, this gut serves as the exit for the effete contents of the alimentary canal. Now, there are accumulations of fæcal matter, large, irregular, hard masses, which lie for hours and days in the upper portion of the rectum just below the sigmoid flexure, awaiting the delayed signal to move on to the outer world. And as they lie in the gut they distend the mucous membrane at the point and press upon the submucous veins, thus more or less completely stopping the return of the blood from the hæmorrhoidal plexus and damming it back into heavy and increasing columns on the veins in the lower portion of the rectum and about the anus. By and by the signal comes for this mass to move, and the process of defecation is begun; by the vermicular motion of the gut, and the pressure of the superimposed viscera brought to bear by bearing-down efforts, this large, hard, irregular mass moves, slowly distending the gut to its fullest and pushing before it the folds of the mucous membrane, and also the blood in the submucous cellular tissue, until it arrives near to the sphincter, when that muscle dilates and these accumulated folds of mucous membrane, distended with the blood which has been pressed into them from along the sides of the rectum, pass out of the orifice of the anus, followed by this mass of hardened fæces streaked over with the blood from ruptures of small distended vessels along its course. Now the sphincter closes involuntarily and shuts out these tumors and effectually ligates their necks, and we have external piles, which are nothing but bags composed of mucous membrane which has been pushed out before fæcal discharges, and filled with connective tissue and distended blood-vessels which have been pressed into them by the same cause from the submucous cellular tissue of the gut.

Just within the sphincter ani the rectum is somewhat dilated, and is much larger than in any other portion; and sometimes when the mass has reached this point there is room enough for it to pass over these folds of mucous membrane and accumulated blood, and then it passes out clear, leaving these tumors on the inside of the sphincter, and we then have internal piles. The ætiology and pathology of external and internal piles are the same; they differ only in location, and in the fact that one is ligated by the sphincter ani and the other is not.

In an improperly made coat it sometimes happens that the cloth shrinks; this leaves the lining of the skirt too large, and the latter will then hang in a bag below the border of the skirt; this is exactly the condition of the mucous membrane in external piles. If we look at one of these external bags of mucous membrane which has only recently been formed, it will appear of a dark purplish color, and very moist on the surface from transudation of the water of the blood confined within. Cut this tumor open, and it is found to contain distended blood vessels, either arteries or veins (nearly always the latter), often a nerve or two of considerable size, with a quantity of connective tissue.

If these tumors have existed for a long time, permanently hanging from the verge of the anus, they present a different appearance. Instead of dark purple, they are of a pale color externally, and often their surface is covered with fissures, small ulcers and fibrous cicatricial thickenings. Cut one open, and the same pale color exists, except in the center of the tumor there is a spot of dark color, shading off to light yellow, and marking the point where a blood-vessel perished, the hæmoglobin of the blood thus staining the surrounding connective tissue. Sometimes the passage of fæces causes a rupture of one of these recent tumors, with considerable hæmorrhage from its contained vessel; generally, however, the hæmorrhage is not great, only sufficient to streak the surface of the fæcal mass. The depression and shock to the physical, mental and moral systems in recent cases is sometimes enormous, and can not be accounted for by the amount of blood lost. As I said above, nerves are often found in these recent bags, dragged down like the blood-vessels from their proper places in the submucous cellular tissue, folded upon themselves in these bags, and pressed upon both by the sphincter ani and by the confined blood by which they are surrounded. Here is a clear explanation of this shock; indeed, it would be phenomenal were it otherwise.

How shall we cure our patient? What would we do with the lining of a coat-skirt which hung in a bag below the cloth? The rational thing to do would be to cut off the redundant part of the lining even with the cloth and stitch it to the edge of the same. But we can not do that here, owing to the presence of blood-vessels which, if we cut, might cause dangerous hæmorrhage; we first, then, cut the tumor as near off as we dare, and ligate the remainder with the vessels contained. The ligature, then, first, last, and always. There is one other method, I am informed, which is practiced extensively by a quack in this city, and respectable members of the regular profession have also recommended it, viz: the injection of these blood-tumors with a solution of carbolic acid or other coagulating substance. However favorable statistics can be shown of the results of this treatment, I do not hesitate to condemn it as exceedingly dangerous, and a man not ignorant of the pathology and anatomical relations of the tumor he deals with is guilty of unnecessarily exposing his patient's life and health by thus throwing a coagulating solution directly into the circulation. It has been suggested that if a clot should break loose from these injected tumors it would be arrested in the liver, since the hæmorrhoidal veins empty into the portal circulation, and, it being a carbolized clot, would cause no abscess or harm of any kind in that organ, thus making the liver a kind of strainer to clean the clots out of the blood before it goes to the brain or other vital organ; but the hæmorrhoidal veins connect directly with the general circulation by inosculation with branches of the internal iliac, hence there is nothing to prevent a clot which had broken loose from one of these coagula formed by the injection from entering directly into the general circulation and plugging up an artery in the brain, or some other vital organ, which might at once prove fatal.

I do not wish to appear to overstate the case, but recent examination of the anatomy and pathology of the parts under consideration has so impressed me with the danger of these injections that I am earnest in giving it my condemnation.

The Nutritive Value of the Food-stuffs.

THE researches of Pettenkofer and Voit on the nutritive value of albuminates, fats and carbo-hydrates, and the part that each plays in the economy of digestion, metabolism and nutrition, will long take their place among the most brilliant examples of the triumph of the true scientific method, *i. e.*, of experiments ingeniously conceived and carefully carried out, so as to exclude or to neutralize each possible source of error, over the crude experiment, whether presenting itself casually or undertaken without previous adequate precautions, and the other alternative of deductive speculation, as seen in the observations or experiments of Beaumont, Bidder, Schmidt, etc., on the one hand, and the attractive but dubious conclusions of Liebig and Frankland on the other; none of which are to be considered free from sources of error.

But if one were to judge from the way in which not merely popular but more serious books on physiology and hygiene—nay, even university examination papers—occasionally refer to flesh-forming foods, to respiratory foods as sources of heat, and to the relative quantity of energy contained in given weights of any aliment, one would think that they were still unknown in this country. Yet the practical value of their results is so great, and the consequences of acting on the hypothesis of the aforesaid speculators might be so serious, that it will not be a waste of time to review the present state of our knowledge on the subject of dietetics.

Liebig, whose fertile imagination led the way to discoveries of the highest importance, although the same discoveries often brought about the rejection of the hypothesis which first suggested the lines of investigation, proposed the earliest rational doctrine of nutrition. In his researches on the food of plants, which have revolutionized agriculture, created new industries, and increased the food-producing capabilities of the Old World, he showed that we could learn from the composition of the vegetable ash what minerals entered into the constitution of the plant, and, by supplying them in the right proportions, enable almost any soil to carry any crop. From this he reasoned to the animal, with this difference, that the latter must have its food provided already in the complex organic forms of the albuminates, carbo-hydrates and fats. Since nearly all tissues contained nitrogen, it was evident that they could be built up and restored only by nitrogenous materials; that is, that albuminates alone could be applied to tissue formation. So far he was right; but, when he began to speculate as to the actual processes of nutrition, he went wrong.

Recognizing in metabolism the only source of functional activity, he assumed that each organ, in the exercise of its functions, consumed a certain proportion of its substance, and that, consequently, albuminous nutriment must be provided in direct proportion to the activity put forth. Albuminates he distinguished as plastic or flesh-forming food; the fats and carbo-hydrates he considered to be no more than fuel for the production of heat, and he therefore called them respiratory food.

According to this theory, the elimination of urea should be proportioned to the amount of energy put forth, and also to the quantity of albumen in the food. But such is not the case. For a short time the difficulty was met by the theory of luxus consumption, which assumed that, when more albumen was ingested than was required for the repair of the tissues, the excess underwent combustion in the blood with evolution of heat, thus playing the part assigned to the carbo-hydrates and fats. The measure of the necessary albumen was inferred from the excretion of urea observed during abstinence from all nitrogenous food.

Moleschott raised the first protest against the speculations of the famous chemist; but it was Voit who demolished the whole theory, by showing that albuminous metabolism is not increased by exercise, and that the albumen metabolized by a fasting animal is insufficient, even when combined with the due proportion of carbo-hydrates and fats, for the maintenance of life; while severe muscular exercise does not augment the excretion of urea, though it does that of carbonic acid enormously.

Voit's experiments clearly point to the conclusion that the greater part of the albumen taken in the food is accumulated *pro tempore* in the general fluids of the body, whence so much is withdrawn by the tissues as is required for their repair, and that this fluid albumen is far more easily metabolized than that which has already entered into the structures. In a previously well-fed dog the daily excretion of urea during the first days of fasting was no less than sixty grammes; but when the stock of free albumen was exhausted, it sank to ten or twelve; while in one that had not previously had more than was necessary for the maintenance of the *status quo*, the excretion never exceeded fourteen; since the hardly metabolized organized albumen had to be drawn on almost from the first. The increased excretion of urea, in certain pathological conditions, is owing probably to the loosening, as it were, of the bonds of the albumen in the tissues, which is thus brought into the easier metabolized condition of the dissolved albumen. In health, a certain excess of albuminous food above the actual needs of the tissues—in other words, an ample stock of albumen, dissolved in the juices of the body—appears necessary to great functional activity, and to afford the power of resisting injurious influences, as exposure to the elements or to disease; but if the ingestion of albumen be continued in greater excess, the surplus is immediately subjected to metabolism, the excretion of urea depending on the albumen ingested, and not on the amount of muscular activity, as Liebig supposed. Yet albuminous metabolism can never be entirely suspended, and is practically the same in animals fed entirely on non-nitrogenous food as in those actually starving. Albumen alone can, however, maintain life, though not health, for a considerable time, and can thus replace the fats and carbo-hydrates, whereas the converse is not the case.

The experiments of Pettenkofer and Voit, of Plosz and Gyorgyai, Maley, Latschenberger and others, tend to the conclusion that peptones can entirely fulfill the functions of albumen, while they are more easily metabolized than the unaltered albumen, whereas gelatine can replace it so far only as regards metabolism, being incapable of entering into the formation of the tissues. The clinical value of these facts is obvious.

The impulse to metabolism seems to proceed from the cells themselves, and to be more of a vital than of a chemical character; the oxygen combining rather with the products of the splitting up of the food-stuffs than directly and primarily with them, as Liebig taught. Thus, in the opinion of Franke, an increased destruction of tissue is actually induced by a deficiency of oxygen in the system; at any rate this is certain, that there is little or no relation between the facility with which any given substance combines with oxygen, *i. e.*, burns in the air, and under the totally different conditions under which it finds itself in the animal body. Thus fats are clearly less easily metabolized than carbohydrates, and albuminates are far more so than their slow combustibility would lead one to anticipate. Albumen splits up into products, one of which is fat, and the others, immediately or remotely, carbonic acid and water. It is, therefore, the probable source of the fat stored up in the body; and the apparent fat-producing power of carbo-hydrates is owing to their easy metabolism effecting a saving of the albumen which would otherwise have been employed in the production of heat and force.

Experiment on the living animal shows this very clearly. For instance, a dog which, on a diet of 1,000 grammes of pure flesh and 500 of fat, gained weight for over a month, began to lose weight when the flesh was increased to 1,500 grammes, without a corresponding increase in the non-nitrogenous food. And again, Frankland's estimates of the energy contained in equal weights of each article of food, based on the heat given off in their combustion, are not confirmed by experiment or by common experience. These points can not be determined *a priori* by chemists, but must be decided by carefully conducted physiological experiments. It is, we repeat, by the influence exerted on the vital cell-processes that metabolism is increased or diminished, rather than by an act of substitution; thus, while alcohol, the most combustible out of the body of all foods, but by no means the most easily metabolized in it, in large doses depresses that action and lessens tissue-change, albumen, hard to burn, but most easy of metabolism, excites it almost in direct ratio to the quantity ingested, or rather to the proportion it bears to the other food-stuffs. We are far from maintaining that every conclusion of the Munich physiologists is beyond criticism, but they are clearly working in the right direction, and their results must lead to a great change in our views and practice, especially in the dietary of the sick-room, and in our ideas of the value and action of alcohol.—*British Med. Journal.*

The Action of Drugs on the Respiratory Mucous Membrane.

Petrone (*Lo Sperimentale*) has repeated the experiments of Rossbach and Aschenbrandt as to the action of different drugs upon the mucous membrane of the respiratory apparatus. In these experiments the trachea was opened and the changes of the mucous membrane under the influence of the drug directly observed. The first experiments were with alkaline substances and the salts of ammonia.

After the injection of two grammes of bicarbonate of soda into the blood, Petrone observed that the mucous membrane became pale and of a grayish tint; whilst under normal circumstances the trachea, when the mucus was wiped off, became covered again in about two minutes. After the injection of bicarbonate of soda there were only a few drops of mucus after eight or ten minutes. If the mucus was again removed, it did not reappear, the mucous membrane remaining dry and anæmic. From this it appears that an alkaline state of the blood hinders or completely stops secretion of the tracheal mucous membrane. Petrone agrees with Rossbach that this fact depends upon the action which the sodium salt exerts upon the vaso-motor and secretory nerves, the consequence of which is anæmia of the mucous membrane and atony of the glands. Hence it follows that the favorable action which is produced by the alkalies in catarrh of the respiratory apparatus depends especially upon their action upon the hyperæmia of the mucous membrane and on the secretion of mucus. Unless a one or two per cent. solution of bicarbonate of soda is used (experiments on cats) no striking change was observed. If an extended area of the mucous membrane was bathed with a solution of ammonia, an extended hyperæmia was observed, and the secretion increased in considerable quantity. From these facts the natural conclusions are that the inhalation of sodium salts, which is practiced in acute and chronic bronchitis in order to lessen the mucous secretion, has no favorable influence; the most that could be expected is that the secretion might become thinner and more easily expectorated. Inhalations with solutions of artificially prepared ammonia may be useful in dry and chronic catarrh, but disadvantageous in the acute varieties. Local applications of acetic acid had a similar effect to applications of ammonia solutions, and the therapeutical indications are, therefore, the same. The local application of astringents, as tannin and alum, produced after four to six minutes a marked paleness of the tracheal mucous membrane. Solutions of nitrate of silver (up to four cent.), used on the tracheal mucous membrane of rabbits, guinea-pigs and dogs, produced a similar effect. The epithelium became dry and all secretion was stopped. No diminution of the vessels could be observed. If the nasal cavity and pharynx was bathed with a four per cent. solution of nitrate of silver, a considerable degree of hypersecretion of the mucous glands was observed in these regions. Application of this solution to the larynx produced, on the contrary, a feeling of dryness in that organ in about half an hour. It is to be concluded, therefore, that inhalations of tannin, alum and nitrate of silver are indicated in catarrh with hypersecretion. When a turpentine-oil spray was directed upon a circumscribed portion of the respiratory mucous membrane, the secretion was at first lessened and then completely checked. The results were entirely different, however, when a mixture of spirits of turpentine and water—1 or 2 to 100—was applied to the same membrane. There was then hypersecretion and vascular depletion. Consequently it appears that the action of turpentine on the respiratory mucous membrane is specific and characteristic. It calls forth the secretion and causes contraction of the vessels and anæmia of the mucous membrane. By this property is explained the favorable action of turpentine sprays upon chronic catarrh with swelling of the mucous membrane and the resorption of chronic exudations. It may also be assumed that when given internally it assists the action of the spray.

Apomorphia, pilocarpine and emetine cause considerable increase of the mucous secretion. In experiments upon dogs and cats crepitant rales were heard over the lungs. The tracheal mucous membrane was always swollen, the superficies showing a granular condition. Section of the laryngo-tracheal nerves did not hinder the increased secretion. These drugs are indicated, then, in dry catarrh and croup. Pilocarpine, which causes secretory troubles in the whole living structure, must be used with caution. Atropine causes a great deal of dryness in the tracheal mucous membrane; the secretion being completely checked in the course of forty or fifty minutes, while the mucous membrane is hyperæmic.. The same characteristic dryness is produced after section of the laryngo-tracheal nerves. It is evident, therefore, that the action of atropia is exerted upon the mucus-forming cells and upon the terminal nerve-filaments which preside over the mucous secretion. Hence it appears that the action of atropine on catarrhal conditions is not due to its anæsthetic properties, but to its action on the secretion of mucus. Morphia decreases the mucous secretion to a slight degree and diminishes reflex irritability. Morphia and atropia, applied at the same time, produce their special actions, and their combined use is indicated in troublesome catarrhal conditions with much secretion.

Copper in Food.

THE time was, when copper was believed, even by medical men, to be almost as dangerous to the human system as lead; but in these latter years, the investigations of chemists and physiologists (to which reference has several times been made in *Science News*) have tended to show that small quantities of copper are comparatively harmless to health. A paper in the London *Sanitary Record* for Dec. 15, from the pen of C. T. Kingzett, F.C.S., who has been one of the leading authorities on this subject, is so interesting, as well as complete in its statement of what is now known about it, that we give it almost in full:—

The ill-founded apprehensions of danger to the public health by the presence of minute quantities of copper in articles of food were investigated in a practical manner by Dr. B. H. Paul and myself in 1877, and the results of our investigation were communicated to the Pharmaceutical Conference in September of that year We proved that the copper which we found present in preserved pease, and which was equal to about one grain of sulphate of copper to the tin containing 9½ to 9¾ oz., was there in a state of chemical combination, and could be entirely dissolved out of that state by a process of artificial digestion conducted in the laboratory. We then took repeated doses of sulphate of copper over a period of seven days, each daily dose consisting of three-tenths of a grain of the compound, and proved by carefully conducted experiments, that a large proportion of this copper was eliminated in the fæces, a result which corresponds to what is well known of the action of ferric preparations when taken into the system. If now, we argued, a large proportion of a dose of a soluble salt of copper is eliminated from the system, how much larger must be the proportion in the case of an insoluble compound of copper such as that which exists in preserved pease! It is to be remarked, that, in our earlier experiments with artificial digestion, we had found that the process had to be greatly protracted to insure the solution of all the copper; so that, in all probability, the greater part of the copper present in preserved pease would pass unchanged, and therefore unabsorbed, through the intestinal canal. Thus we did not hesitate to express a well-founded opinion, that the minute amount of that metal present in such articles of food as preserved pease could not prejudicially influence health. Our paper led to an interesting discussion and a good deal of confirmative evidence. Thus Dr. Rowe mentioned the fact that a stream in the county of Cornwall which had supplied drinking-water to the inhabitants in the neighborhood contained sufficient copper to be profitably precipitated by iron, and yet had been freely consumed without inconvenience or danger. The well-known experiments of M. Galippe, then recently communicated to the French Academy of Sciences, were confirmed by and confirmative of our own results.

I may add, that some time ago a singular confirmation of the results of the investigation conducted by Dr. Paul and myself was forthcoming at the hands of Dr. Michele Giunti of Portici, who discovered copper to be present in some bats' guano obtained from a cave at Santagata d'Esaro, to the extent of 0.348 to 0.403 per cent of cupric oxide (CuO); and, upon examination of the bats whose excrements had formed the guano, he found the incinerated residue furnished an amount equal to 0.0014 on the original weight of the animals. "It is worthy of note," Dr. Giunti adds, "that, the proportion of copper found in the animals being much less than that in the guano, confirmation is lent to the observations of Paul and Kingzett, that, when copper is administered internally, the greater portion passes out with the excrements."

Dr. Giunti examined more than twenty species of insects for copper, which was always found present, as it was also in the hedgehog and a species of lizard. He accounts for the very large quantity found in the *Blatta orientalis* (0.826 per cent. CuO in the ash) by the fact that they come into intimate contact with copper vessels in their excursions about the house in search of food.—*Science News*.

Chloral Poisoning.

What are the remedies to be employed in acute chloral poisoning? They are especially those designed (1) to sustain the action of the heart, such as ammonia and brandy; (2) to keep up the breathing by artificial respiration, if needed; (3) to keep the patient warm; and (4) to use electricity as a cutaneous stimulant. Thus far you would treat a case as an ordinary one of narcotic poisoning. But is there any remedy that will counteract the depressing effects of the chloral upon the nervous centers, and particularly the respiratory center? Yes; the remedy for this purpose is strychnia, which antagonizes the chloral. It may be used as we gave it here, hypodermically, one-sixtieth of a grain every three hours at first; and it would have been given oftener, but it was not needed. Strychnia, therefore, is indicated as the physiological antidote. It stimulates the centers which have been depressed by the chloral. When recovery takes place, it is usually rapid.

What should be the treatment of chronic chloral cases? Suppose that a patient like this says that the habit is growing upon him, and comes to you for advice, what course would you pursue? I would answer that you must reduce the dose gradually. As large doses of chloral are only given exceptionally, there will be less difficulty on this score than with opium; but as you reduce it, I would strongly advise you to give strychnia or nux vomica for its effects on the nervous system. It antagonizes the effects of the chloral, and acts as a tonic at the same time. Those nervous centers which are reduced in their activity by the paralyzing effects of the chloral are stimulated by strychnia. If you use strychnia you may stop the chloral almost at once without any bad effects being observed. I had a case in point last summer. A gentleman who had been taking chloral for some time found himself very weak, his will-power impaired, and he felt miserable. He determined to stop off entirely. He went to Atlantic City without a single grain of chloral. He took constant out-door exercise. He was sleepless for a time, but he was able to overcome his evil habit; and, although he had been using chloral regularly for eighteen months, he recovered entirely. It should be stated, however, that while giving up the chloral habit he took, from time to time, strychnia or nux vomica.—*Philadelphia Medical Times.*

Treatment of Tonsillitis.

Dr. S. Solis Cohen gives the following treatment, which he says is pursued at the Philadelphia Polyclinic with eminent success:

1. In simple inflammatory tonsillitis, take two fluid drachms each of the ammon. tinct. of guiac. and the comp. tinct. of cinchona, mix with six fluid drachms of clarified honey and shake together until the sides of the vessel are well coated; add gradually a solution of eighty grains of chlorate of potassium in four ounces of water, shaking meanwhile. This is to be used as a gargle every one-half to three hours. Relief is usually experienced within a few hours and recovery is prompt. A saline cathartic may accompany the use of the gargle. None of the cases seen suppurated, and if seen within the first twenty-four hours such accidents are very unlikely.

2. In rheumatic or constitutional tonsillitis (characterized by intense pain in swallowing, causing great accumulation of saliva from unwillingness to swallow, with slight, perhaps no, congestion of throat, and subsequent fever; one or both tonsils becoming enlarged after some hours as the febrile symptoms decline, and muscular or joint rheumatism sometimes developing later), after a saline cathartic, give the following in tablespoonful doses every two hours:

℞	Sodii salicylate, . . .	ʒ ij,
	Ol. gaultheriæ, ...	*M* j,
	Liq. ammon. citrat.,	
	Syrup simp., ...	℥ ij.

Lengthening the intervals as the pain subsides. Pieces of ice or guiac gargle promote comfort and the stiff neck is best relieved by faradization. Salicylate of quinine or cinchonidine may be substituted for the above if a tonic be required, in five grain doses every four to six hours.—*Phil. Medical News.*

Borderland Psychiatric Records—Prodromal Symptoms of Psychical Impairment.

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"PAZZIA DEL DUBBIO."—In 1878, F. C., aged twenty years, began to complain of palpitation of the heart. Soon, thereafter, he took a notion that it hurt him to look at things, saying that the mental action, excited by what he saw, hurt him, and that whenever he closed his eyes a web formed over them, so that he had to open them again for fear the web would become permanent; consequently, he would alternately open and close his eyes all day, and at night, too, when awake. He constantly kept rubbing his head also, from before, backward, with one hand, while with the other he continually kept a handkerchief before his eyes, rubbing and wiping them. He insisted that he was not insane. Opthalmoscopic examination revealed nothing abnormal within, and careful scrutiny of the eye without, discovered no foreign substance or disease of the eye externally.

His general appearance was fleshy; bowels were somewhat sluggish; his general movements were slow, and he did not sleep enough without hypnotics. His appetite was good; he disclaimed masturbation, and was more chilly than he ought to have been for the season and weather. He was a country boy and had been rather studious. No hereditary insane taint was confessed by relatives, but the father was markedly neurotic; his mother died of phthisis. He has since given more satisfactory evidence of his insanity to the writer's mind, but he remained in the above condition about eighteen months at least.

EPILEPTOID PSYCHOSES.

A. B., aged twenty-nine, is a merchant, tall of stature, broad-chested, robust and of temperate habits as regards alcohol or tobacco indulgence. He is unmarried. His countenance is florid; pulse, full; bowels, regular; appetite variable and he sleeps poorly.

He feels an uneasiness in company, which is not natural to him; imagines his words come back to him. The eustachian viæ auris where shown to be pervious on inflation. He has twice of late, in the darkness, seen subjective flashes of light in which everything about him appeared dazzlingly brilliant.

His mother was a very nervous woman. The case came under our observation two years ago. He remained in *statu quo* for some time, but under the use of bromides and the wearing of colored glasses, the disordered subjective sensation disappeared.

Urinary analysis revealed nothing significant in either of these cases. Neither of these patients are under medical treatment at present.

M. E. T., of Jefferson County, about seven years ago received a left parieto-temporal fracture from a violent blow with a cane, in consequence of which he was obliged to take his bed and remain in it for ten or eleven days. He says he was never comatose or unconscious from the blow. A habitually rapid pulse, constant headache and muscæ volitantes followed. When he came under my observation, he also complained of frequently seeing a green spot before his eye, which gradually widened until he could see nothing else; he would then get dizzy and have to lie down. This subjective perception used to appear every day or so, "like the ague." He has had chills since, and always has this same visual hallucination when the chill comes on. After the phenomenon passes off, he is nauseated and constipated. Tendinous knee reflexion could not be elicited after repeated trials.

The symptoms in this case are all on the left side. He has there increase of temperature, impairment of taste, numbness, impaired vision and exaggerated tendency to hæmorrhage on slight injury to the left side, as from the scratch of a razor or the prick of a pin.

About four days after being struck he felt a roaring in his head, which persisted for several weeks. About two weeks after the injury he became suddenly incapable of motion, and was simultaneously overcome with intense pain in his head. He remained in pain and incapable of motion for two days. There was also severe pain in the left shoulder. He could get about on crutches in about two weeks after this injury, and in two weeks later, all these motor and painful symptoms passed away. Up to March, 1867 (date of case-book record), he would feel very hot at times and numb, as though frost-bitten in the left side of head and ear. All symptoms disappeared after a few months of treatment, and were kept abeyant for one year thereafter. The patient has reported no return of symptoms. He received cephalic galvanization and the bromides and arsenic with occasional courses of quinia.

MORBID DELUSIVE AVERSION—VERDIPHOBIA, *mania contaminationis*, "(TOXIPHOBIA, MYSOPHOBIA, RUPOPHOBIA, PAZZIA DEL DUBBIO.)"

In January, 1882, S. A., a slender but somewhat delicate auburn-haired youth of fourteen years, came under observation, suffering with facial choreaic movements and slight left ptosis. He had been tenderly and indulgently, and probably luxuriously reared. His mother and father were nervous and mentally somewhat peculiar, from a psychiologist's standpoint, though not sufficiently singular to attract general attention or comment. The mental capacity of both parents was good—the business capacity and financial success of the father being above the average of his neighbors—his business now being that of a financier, but, after a severe business stress, he had himself been temporarily deranged, according to the statement of his son.

The habits of this youth were very studious, he being apt and advanced at school above his companions at the time this affliction befell him, and his moral sensitiveness was excessive for his years. He became interested in religious matters, and began to question the unsinfulness of some of his actions, which are not regarded as violative of the decalogue, or usually considered improper. In short, his mind at this time, had become overwrought from over-study—too little sleep possibly—together with neglect of physical recreation.

At the season of the year when the potato vines were infested with the potato bug, the youth accompanied some of the hands into the field, and saw them put "paris green" on the vines to kill the bugs. At this time, also, a toy pistol was fired off close to his ear by a companion, producing a profound shock, and some cerebral disturbance. A short time after this incident, when potatoes were brought on the table, he took a morbid aversion to them, fearing they were poisoned, and would not eat them. This aversion soon extended to those who had handled them, and to the clothing of those who had handled either the potatoes from the field or the paris green. He importuned his parents not to eat the "poisoned" potatoes and avoided contact with them. Straightway he began the customary self-ablution process, so peculiar to these patients, which he performed every time, shortly after rising from the table, and after touching a member of the family. From a fear of potatoes, this delusive morbid aversion passed to a fear of everything that was green. The green wall-paper, table covers, book covers and carpets were all regarded as poisonous, and his time was spent in avoiding these colors and in washing away imaginary contamination. He would wash his hands after handling anything that any of his family had touched, even letters and papers received through the mail. Paris green or arsenic were pigments in all green colors, he thought, and it could not be reasoned out of him. It was volatile, too, for he had read the reports of the Massachusetts State Health Board, on that subject, and they proved it in regard to green wall-paper, because they showed that people were poisoned by sleeping in rooms which were papered with green wall-paper.

This boy was not melancholic. He enjoyed himself at play, and with the sights of the city, whenever nothing occurred to excite his morbid dread of green.

Under the dominion of this delusive, morbid aversion, this young man was in constant misery wherever there was anything green, except the green fields or plants. Our efforts at treating him were unsuccessful, because, unfortunately, the wall paper, carpets and some of the table covers of our house had green shades in them. On other subjects, this boy's reasoning was rational enough, and he was bright and observant; but his conviction became intensified, his suits of clothing from home having to be cast aside and his trunks sold. He found something to keep alive the morbid feeling in the colors encountered by him, wherever we placed him in the city. Under such circumstances we continued our efforts to treat him but a short time. At the end of two months of fruitless endeavor, we advised that he should be consigned to the care of Dr. Ira Russell, of Winchendon, Mass., hoping that at such a distance from home and the knowledge of our profitless experience, would enable the doctor to do him more good than we had done. Dr. Russell had seen him at our house, however, which, was an embarrassing circumstance, and may have interfered with his perfect recovery there. We have lately seen this youth, and the delusion, though in less demonstrative form, according to the statements of father, still persists. The boy would not approach the writer for fear of contamination, and the writer considered it untherapeutical, to insist on taking the boy's hand. These are the cases where "hands off" is the soundest therapeutics.

This record must terminate here for the present, as we have no time to add to it. The subject shall again engage our attention and be amplified from our case-book, in which are many cases illustrative of limited and circumscribed mental implication, some of which have gone on to what would be generally recognized as insanity, and some of which have been cured. We use the term "borderland," in deference to M. Ball, who not long ago entertained us with a charming lecture on the subject, and to common medical opinion, since Forbes Winslow gave the profession his excellent treatise. Nevertheless, the last case may be certainly classed among the limited or partial insanities. The perverted reasoning of no lunatic was ever more obstinate or unchangeable. This case is probably the beginning of the end of complete cerebral break-down.

The last case can hardly be classed among the "insanities of doubting," for it was a positive conviction. Nor do we think the term is a sufficiently comprehensive appellation, for the majority of these cases are not doubtful, but positive. On none of the most realistic ideas of their minds are these patients more firmly convinced, than they are in regard to the reality of their delusive misconceptions. From our study of the last case, that boy would have fought to the death in resisting imaginary contamination, if he thought he could not have washed it away, and his distress was so great at times that he earnestly threatened to take his life to escape his misery. The first and last related cases are instructive as serving to demonstrate how a single morbid idea, as well as a delusion rationally reached, may dominate mind.

They have analogies in other forms of mental aberration which alienists might profitably recall, in reasoning upon the morbid possibilities of the mind.

The second and third cases we have placed among the epileptoid psychoses only conjecturally, and for want of a better place for them. The initial epileptoid movement in the second case probably beginning in the corpora quadrigemina, and in the third case starting at the color center, if there be such a center in the brain, and the writer thinks there is good reason to believe there is.

Cases like F. C. and S. A. would be categoried by our Italian and French confreres possibly as belonging to the insanity of doubting and touch, but they appear to be characterized not so much by morbid doubt as by morbid conviction. The first is an unique case—a real *insanity of touch.* The second also is an insane conviction, a true mania on the subject of being poisoned, and many of these *phobias*, though limited to a single subject, should be regarded as true *maniæ contaminationes.* So that we conclude, that some of these cases are really only morbid fears of the possibility of contamination or defilement—(mysophobias) while others are confirmed delusive convictions—fixed morbid aversions to things and persons that might defile by contact; true, but limited insanities concerning the touch of certain objects or persons.—*Alienist and Aurist.*

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Conservatism in Throat Practice.

BY H. CLINTON M'SHERRY, M. D.,

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There is no longer any novelty in reports of successful removals of laryngeal neoplasms, but recent published accounts of growths disappearing from the use of local applications without operative procedure are so rare that I feel justified in calling attention to this method of treatment, which, though not new, is the most judicious in some, perhaps in many cases. The two questions in regard to the treatment of growths in the larynx which require thoughtful answers are:

1. What are the objections to the evulsion of growths, which, although small, are of sufficient size to allow them to be grasped by the forceps?

2. Do topical applications ever give results which justify their being employed in the treatment of growths, which might easily be removed at the first sitting, and if so, in what cases?

In reference to the first question, if we exclude the danger of serious damage being done by any want of expertness in manipulation, the issues that must be carefully considered before evulsion is undertaken, are, whether there is good reason for the belief that recurrence is frequent, and that the growth of the secondary formation is apt to be more rapid and attain a larger size than the primary, and also if it is possible, that after the removal of a benign growth it may on its reappearance assume a malignant nature?

Speaking of papillomata, which constitute about seven-tenths of all growths occurring in the larynx, and are the most apt of all benign formations to reappear, Morell Mackenzie says: "In sixty-seven cases the number of recurrences was four," but he adds, "after the operation, some were lost sight of at a comparatively early period. The proportion of recurrences is therefore in all probability rather greater than my statistics indicate."

Lennox Browne, who, in 1878, stated that he had seen over twenty thousand throat cases, put the number of recurrences at twenty per cent., and he also says, "it is worthy to be remarked that where there is a tendency to fresh growth in another part of the larynx, or to occurrence in the original situation of the first formation, and repetition of the operative procedures is made, the interval between each successive recurrence almost invariably becomes shorter."

Cohen says, "patients from a distance should be taught the art of auto-laryngoscopy, so that they can examine their own laryngeal structures from time to time and detect any recurrence of the growth in its early stages."

Stoerk says, "after the operative removal of the papilloma it frequently reappears."

Turck, referring to papillomata, says, "if the roots are not successfully destroyed after extirpation there is frequent recurrence."

Professor James says, "recurrence is common in papillomata."

There is no necessity to dwell longer on this point, as laryngoscopists generally agree that after removal of papillomata there is frequently reappearance, but I will give the history of an illustrative case from Stoerk's practice of which I have never seen a translation. The growth, a large one, was entirely removed, and the voice restored in May, 1866, but in October of the same year the patient returned with a recurrence of the growth which was removed, and the roots cauterized with caustic potash and the patient sent away apparently well. In May, 1868, he reappeared with the growth, but little smaller than at first, and it was entirely removed again, after which hardly a year passed that Stoerk did not remove papillomatous growths until 1879, thirteen years from the time of the first operation, when he removed two groups of papillary masses and published an account of the case.

The second point in regard to the first question is, do benign formations ever reappear after removal as malignant growths?

Without attempting to enter into the pathology of cancer, I will state that the weight of recent pathological investigation favors its local origin, and that the cancerous cachexy is secondary, and that Virchow, Sir W. Jenner and others, affirm that irritation of healthy structures may produce hetero-plastic growths, and when cancer does appear as a result of irritation, whether it is due to a constitutional vice or not, certainly its local development is facilitated by such irritation.

Cohen says in this connection, "it occasionally happens that papillomas became transformed into epithelial carcinoma sometimes from mere local irritation from cough and pressure, and sometimes from irritation set up by repeated and unsuccessful attempts at removal." He adds, adenomas are likewise liable to become malignant. These assertions of benign growths being transformed into malignant ones after operation would not be conclusive unless substantiated by some cases, and without very particular research I have found six occurring, one each, in the practice of Gibb, Mackenzie, Rumbold, Bruns, Stoerk and Clinton Wagner.

In answer then to the first question we may admit that there are some drawbacks to the removal of growths, that there is liability to recurrence, that the secondary formation is usually of more rapid growth than the primary, and also that there is the possibility of a benign neoplasm reappearing after removal as a malignant growth. We will now take up the second question. Do topical applications ever give results which justify their being employed in the treatment of growths in the larynx which might be removed at the first sitting with the forceps, and if so in what cases?

In the early days of laryngoscopy, before it was known how tolerant the larynx usually is of manipulations and injuries inflicted on it, instrumental interference was very cautiously undertaken, and then many cases were treated in this conservative manner, and in a number of instances with marked success. Indeed, of all the growths in the larynx, 286 in number, reported up to 1870, twenty-one were treated by astringents and caustics alone, and of this number there were eleven cases of cure, nine of improvement, *i. e.*, the relief of dyspnœa, improved voice and diminished size of the growth, and one case which gave a negative result. Among these twenty-one cases are not included those of multiple growth, where after the removal of the largest, the others were treated by clinical means, of which quite a large number are reported, nor, it is hardly necessary to mention, does it include those treated by galvano-cautery.

These growths varied considerably in size, and were classified as papillomata, myxomata, fibromata and benign epithelial formations, and some others the pathological nature of which was not given, and to the latter class belongs the one case where a negative result was obtained.

Eighteen of these twenty-one cases occurred before 1864, that is within five years of the time when Czermak first saw a growth in the larynx, but as physicians became more skillful in laryngoscopy and manipulations about the larynx, the temptation to prove their dexterity by the removal of a growth when seen was so great that we can hardly be surprised that any other treatment than evulsion was nearly abandoned, and now, though astringent applications are spoken of as a means of treating small excrescences, this method is rarely employed by physicians, except when foiled in the attempt to get hold of a growth, either on account of its small size or point of attachment. It is truly a brilliant piece of professional work for a laryngoscopist to look into a man's throat who has been suffering for months or years with unaccountable hoarseness and cough, tell him he has a growth in his larynx, introduce a pair of forceps—take them out—tell him the source of his trouble is gone, and hand him the *corpus delicti* which the patient takes home to show to his friends, or which the doctor puts into a bottle of alcohol intending at some future time to exhibit to a medical society, by which he fulfills some of the conditions necessary for medical success. In a recent number of the *Medical News* there is an editorial criticising an operation (cardiacentesis) which, though apparently not more likely to benefit the patient than a very simple, though now, unfortunately, rarely employed method (phlebotomy), is certainly attended with two conditions which are generally pleasing to what is called a bold surgeon, namely, first, it has the spice of some risk to the patient, and second, it will probably give some notoriety to the operator if the patient does not die. In this editorial the following sentences occur: "To reach eminence quickly the young surgeon must startle. He must explode, so to speak, under the ancient surgical edifice, a cask of dynamite to awaken the inmates of this conservative institution to a realization of the tremendous revolution going on about them." And again: "The small difficulties in the way of the brilliant operation are of little moment compared with the magnificent *coup de theatre* of the procedure itself." These sentences apply tolerably well to my point, but still more apposite is the following from Lennox Browne: "Since Czermak, in 1859, first discovered with the laryngoscope a growth on the right vocal cord, and Lewin, eighteen months later, removed one, the goal of every student in throat diseases has been to find an excrescence in the larynx, and having found it, to remove it *vi et armis* without for a moment considering how slight might be the symptoms he was attempting to relieve, or what serious results might ensue to his patient by the operative interference he adopted."

Now, although from what has been said, it may be seen that I think that the removal of some growths is undertaken not only unnecessarily but injuriously, there can be no doubt that in many cases the only proper treatment is evulsion, and it remains to be decided which those cases are, and in what instances it is proper to make use of local applications.

Not to make this paper too long, I will state in a general way that I think that every growth which produces marked dyspnœa should be removed, but if only slight hoarseness and cough is occasioned it should not be removed at once, unless it produces very decided paroxysms of coughing, or is a polyp with a small point of attachment. Further, I think that every sessile growth with a broad point of attachment should be treated with astringents and caustic applications a long time before its removal by operation is undertaken, unless some of the urgent symptoms mentioned above are present, but if after the prolonged use of local applications the growth does not diminish in size and the disagreeable symptoms continue, operative removal may be undertaken.

I will give as briefly as possible two cases, showing the good results from conservative treatment, one taken from Dr. Morell Mackenzie's report and the other from my own practice. The first, a man æt. 43, had been suffering for fourteen months when he applied for treatment. The laryngoscope showed a small, smooth, pale growth (benign epithelial) on the right vocal cord. There was no change in the tumor for two months while under observation, but not under treatment; but after strong solutions of the nit. silver, iron, alum and persulph. of iron had been applied twice a week for six months, the growth entirely disappeared and the voice became perfectly clear.

The second case is that of a gentleman, æt. 60, who applied to me about the first of October, 1881, for treatment of a small growth on the right vocal cord, which I had had under observation and irregularly under treatment for a year before without any marked change in it any way. As it was a small, white, uneven-looking sessile growth, I diagnosticated it a papilloma, though Cohen truly says: "It is absolutely impossible to pronounce positively as to the nature of a laryngeal neoplasm before some portion of it has been removed. * * * * Certain physical appearances, however, together with the locality occupied by the growth, often furnish sufficient evidence for an approximately accurate diagnosis."

I did not think that much good would be done by interference with this growth, but as he had been annoyed by hoarseness for nearly eighteen months, he had become impatient and requested me to remove it, and on my asking him to allow me to make a fair trial of astringents before resorting to evulsion, he said that he would, if I consented, consult some other throat specialist about it before he decided what to do. Of course I made no objection, and he was examined by a well-known laryngoscopist, who wrote me the following opinion: "I am inclined to think the growth fibrous rather than papillomatous in its nature. He seems anxious to have something done, and I advised him that I thought you could safely remove it at this time." About the same time he was examined by another gentleman, who gives special attention to throat diseases. He made a drawing of the larynx, showing the growth, and expressed the opinion that it was a mucous formation and should be removed.

Notwithstanding the opinion of these authorities I prevailed on my patient to allow me to make use of the topical applications. I applied ferri perchlor. gr. xl to ʒ i every other day from the 3d of October, 1881, until the 5th of January, 1882, three months, when the growth had entirely disappeared and his voice become perfectly clear. Eighteen months afterward I examined his larynx and there was no vestige of the tumor, and now, two years from the time of its disappearance, there has been no recurrence, and the gentleman tells me that he has had no trouble of any kind with his throat, and that his voice has remained perfectly clear.

The history of this case suggested my paper, as I feel quite sure that many specialists in throat diseases overlook the possible danger from the operative removal of growths, as well as the good results which may be effected by the more conservative treatment.

Royal Medical and Chirurgical Society.

Tuesday, November 27, 1883, John Marshall, F. R. S., President, in the Chair.

Investigations Into the Action of the Digitalis Group.—Dr. Sidney Ringer read a paper on this subject. Digitalis was taken as the type of a group of drugs whose influence was exerted mainly on the circulatory system. The facts of chief importance in this action were:

1. The arrest of the heart in systole (if the dose were sufficiently large).
2. The raised blood-pressure which obtained throughout till close upon the final systolic arrest.

Whilst the spasm of the heart was universally recognized as the result of the digitalis action, and as caused by direct action of the drug on the cardiac tissues, there was doubt both as to the condition of the arterioles under the influence of the drug and as to whether the influence were direct or indirect. The action of digitalis upon the heart might be thus defined: As the production of continuous spasm of the heart-muscle by direct action of the drug on this tissue. It was pointed out that this spasm could not be of the nature of a tetanus, i. e., of a fusion of adjacent beats, and further, that it might affect either the whole heart or a limited portion of the same, according as the drug was applied to the whole heart or to a limited portion. Thus defined, the already very large group of bodies classed by Schmiedeberg under the heading digitalis became yet larger, and would include, among others, the caustic alkalies and barium-salts. Experiments were recorded in which an artificial saline solution was circulated through the vessels of the hinder extremities of a tortoise whose brain and spinal cord had been completely destroyed. The experiments were so arranged that the rate of flow could be measured; and so soon as a uniform rate of flow had been established the drug was added to the circulating fluid. The results obtained with digitalis were both uniform and striking; invariably, upon the addition of the drug, the circulation became slower, even to the extent of almost complete stasis. Similar experiments were made with the following members of the digitalis group: Strophanthus, dyak poison, convallamarin and scillitine. In the case of each of these drugs evidence of constriction of the vessels was obtained in the shape of a slowed circulation rate. Digitaline, however, ranked as by far the most active of the above. Similar experiments were made with hydrate of potassium and with the carbonates of potassium and sodium bicarbonate, which, with the exception of the last, gave like evidence of constriction of the arterioles. Experiments carried on simultaneously with the above on the excised heart of a frog showed in the case of each of the above drugs, the production of more or less persistent spasm, with the notable exception, however, of sodium bicarbonate, which gave none. Experiments then followed which sought to determine whether the caliber of the vessels, in addition to being directly influenced by these drugs, could be affected by them through the nerves. Digitaline was alone experimented with. The results were purely negative. Finally, to meet the suggestion as to the action of the drugs on the skeletal muscles, experiments were made with frogs, given quantities of solutions of digitaline, strophanthus, dyak, scillitine, barium chloride, and caustic potash and soda being injected. The results showed the first five to be notable muscle-poisons, the muscles rapidly dying and losing their excitability; indeed, even before the death of the animal a very marked diminution of muscular irritability was in several cases observed. Comparing the actions among each other it was noted that strophanthus and dyak poisons acted much more powerfully on the skeletal muscles than did digitaline. To sum up the argument, briefly stated, was as follows:

Starting from the systolic digitalis-heart, which was admittedly a result of direct action of the drug on the cardiac muscle, the following conclusions were arrived at:

1. For the other members of the digitalis group here examined a like action obtained.

2. It was suggested that the local action on the heart might serve as the definition of the action of digitalis; this accepted, Schmiedeberg's already large group must be still further enlarged.

3. Arguing from this action on the muscular tissue of the heart, it was inferred that the action on the muscular tissue of the arterioles would be similar, an inference verified by actual experiment.

4. So far as the experiments went it was not found that these drugs influenced the caliber of the vessels indirectly through the nervous system.

5. It was pointed out that many of the digitalis group were notable muscle poisons and that the tissue of the heart, standing functionally midway between the striped and unstriped muscular tissues, might permit of the inference that a marked action of the drug on the tone of the heart would indicate a similar effect on the tone of the vessels, whereas a marked action on the cardiac beat would indicate like action on the skeletal muscles.

The President commented on the value of this comparatively new method of experimental research. Such courses of experiments might safely be left in the hands of the authors of the paper just read. He invited discussion on the effect of digitalis on the heart, the vessels and the muscles.

Dr. Lauder Brunton said he should feel that he was showing best his high value of the paper by pointing out first in what points he was in disagreement with its results. The definition of the digitalis group was, he thought, too wide. It was a group so large as to remind him of the two chemical groups of substances which were and were not precipitated by sulphuretted hydrogen. He had himself been engaged in some experiments on the group of substances which stopped the circulation by contracting the arterioles, and found that there were to be included in it many substances, such as cobalt, strontium, nickel, magnesium and platinum, which were not generally recognized as having this effect. Their influence, however, he admitted, was much less than that of digitalis. His experiments had been carried out on frogs, in which the nerves had been destroyed. The amount of flow through the vessels was estimated by the drops, as they issued from the circulation, falling upon a delicately adjusted lever, and registering their fall by breaking an electric circuit, a method which he had found to work very satisfactorily. In the consideration of digitalis he thought it important to consider it as a whole in its effects on the heart, the nervous system, the vessels; and, when considered in this way, a smaller group of analogues could be formed, as Schmiedeberg had shown, from which even veratria must be excluded, in spite of its similar action in many points. In their action on voluntary muscle-fiber the members of this group showed very different results, varying not only with different species of animals, but also with different individuals of the same species. One frog differed from another in susceptibility, and one cat from another. The causes of this difference he was at present endeavoring to ascertain. That digitalis was not a masked muscular poison he considered as fairly well established, though even here the results obtained on *rana esculenta* differed entirely from those on *rana temporaria*, as he had had an opportunity of showing about fourteen years ago. The effects of caffeine also differed remarkably in these two species of frogs. The most interesting point in the paper had been the inference, from the action of digitalis on the heart-muscle, that it would have the same effect on the muscles of the vessels, and the confirmation of this, to some extent experimentally, which Dr. Ringer and Dr. Sainsbury had brought forward. It was probably, *a priori*, that the action on the two should be similar, since both heart and vessels were developed originally from a single tube, but it was an inference to be used with caution. That digitalis does contract the arterioles he considered as proved, though it was not universally accepted; some experiments of his own, along with Meyer, in 1867, had shown it, and fresh proof had now been brought forward by Dr. Ringer.

Dr. John Harley suggested that a fallacy underlay all the discussion, and that was that in the experiments the brain and spinal cord had been removed, and it was argued that the effects under these conditions were the same as if they had been present; but it seemed to him that the chemical laboratory of the body had been annihilated and the sympathetic system destroyed, and the inferences to be drawn from such a state were very doubtfully applicable to a normal system; and, moreover, the author of the paper assumed that the poisons acted on muscular fiber by itself, whereas he could not think it possible to dissociate entirely nerve and muscle tissue. On the whole he was very sorry that so much time and ingenuity of excellent observers should have been wasted upon experiments which led to such comparatively slow progress in knowledge.

Dr. Broadbent remarked that he was sufficiently unsophisticated, or perhaps he should say sophisticated, as to look upon these experiments as of great value, for they led by a continuous chain to knowledge of the results in human physiology, and might in time, with patient observation, serve as a basis for the great generalizations which he hoped might some time replace the common systems of therapeutics. He agreed with Dr. Lauder Brunton in thinking the digitalis group, as Dr. Ringer had represented it, too large. The great difference in the effects of carbonate of soda and bicarbonate of soda was sufficient to show that the drugs did not act entirely in virtue of their basic element, and he thought it probable that the action of the group of salts was by an essentially different method from that of the complex organic molecules, as was partly exemplified by the œdema produced by the salts, so that the impossibility of practically using the alkalies for the same purposes as the digitalis group was due more to a specific difference of action than to the difficulty of getting sufficient alkali into the blood.

Dr. Bernard O'Connor said it would be interesting to know the effects produced when different parts of the heart were tested, as he had been led to believe that the fibers of the base were much more active in contraction and were acted upon differently from those of the apex.

The President asked Dr. Ringer whether he thought that the paralyzed condition of the muscles of the lower half of the body, in his experiments, had had any influence on the blood-flow.

Dr. Ringer admitted that the definition of the digitalis group was too large, as Dr. Brunton and Dr. Broadbent had suggested. The common belief as to the action of digitalis was that it strengthened the action of the ventricles of the heart. If that were so the best cases for its use would be cases of aortic regurgitation; and though Dr. Balfour recommended its free use in such cases, yet most physicians did not, and for himself he could hardly agree that this strengthening of the action of the ventricles was its chief action. A case of aortic obstruction, in which there was not compensating hypertrophy, was the best test case, and in such cases he had found it did little good. In regulation of an irregular heart it was pre-eminently the drug to be used, and he did not at all expect any of the other drugs he had discussed to be able at all to take its place. He agreed with Dr. Lauder Brunton that its action as a muscle poison was not strong. He must differ from Dr. John Harley as to its necessary action through nerves, for he found it act just as readily on pieces of the heart-tissue that were without nerves, as in others where nerves were present. In answer to the President, he had only to say that the muscles reacted to galvanism after the experiments, and he had no reason to think that their condition influenced his results.

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A New Treatment of Cancer.

Prof. Nussbaum, whose name is very familiar to the profession in connection with his method of treating ulcers, discusses a new treatment of cancer in the *Muenchen Med. Woch.*, a translation of which appears in the *Physician and Surgeon.* After enumerating the unsuccessful attempts at preventing the development of cancerous tumors by ligating the main artery supplying the part, or by injecting various remedies into the parenchyma of the tumor, or around it, and the frequency of their recurrence after extirpation with the knife, he proposes his new method. He had noticed, in connection with his plan of treating indolent ulcers of the leg, that when an incision was made around them about a finger's width from their margin down to the fascia, the incision being prevented from healing, improvement rapidly set in. He now proposes a treatment essentially similar for cancer. Not long ago he treated a case of cancer of the mamma, with so strong a tendency to hemorrhage that each dressing of the ulcer threatened the woman's life. As the patient was nearly moribund from the frequent loss of blood, he surrounded the tumor with a strong subcutaneous ligature, which he drew together with all his strength and then tied. The result was not only an arrest of the hemorrhage and a speedy rally of the patient, but a constant decrease of the tumor to one-quarter of its size, when the ulcer began to cicatrize. He now proposes to prevent the feeding of these tumors by their peripheral nutrient vessels in the manner indicated. The blood which supplies the tumor through its base, while it does not absolutely starve it, is, however, sufficient to keep it stationary. In order to accomplish the desired interruption of the blood supply from the periphery, he urges the formation of a furrow around the tumor down to the fascia, about one centimetre wide, made by means of a thermo-cautery.

In the case above referred to a tubercle had not been included in the ligature. Nine months after the application of the ligature the tubercle had grown and had thus reached the tumor of the mamma, which latter had meanwhile become quite solid. He treated the new growth by surrounding all the isolated tubercles with the deep furrow spoken of, and in six weeks had the satisfaction of seeing all the tubercles shrink in size. Nussbaum thinks the thermo-cautery, or actual cautery, is much more useful than is generally believed. The subject of the condition of the patient, his strength and appetite, are much better after an operation with a cautery than with a knife. The wound heals more quickly, except in cases where approximation by sutures can be employed after the operation by the knife. The superior advantages of the cautery are referred to the absence of loss of blood, and to the fact that the nerves and blood vessels, being covered with a cicatrix, are protected from the influence of the air.—*Therapeutic Gazette.*

THE TREATMENT OF VOLVULUS.—When there is intestinal obstruction, due to twisting of the sigmoid flexure, its reduction is readily effected after abdominal section, but it sometimes happens that the intestine becomes again twisted after the operation has been completed. To obviate this danger, Dr. W. Roser, in an article in the *Centralblatt fur Chirugie* of October 27, 1883, advises that the colon be fastened by sutures to the abdominal wall. Several sutures must be used, passing through the mesentery on one side and the peritoneum of the left abdominal wall on the other, in such a way that the upper part of the flexure, which seems to be the most movable, shall be kept slightly raised. In the same way the mesocolon might be fastened up after the reduction of an intussusception by means of laparotomy, when a return of the invagination was to be feared.

Microscopy.

Incision and Drainage in Purulent Pericarditis.

WITH regard to operative surgical interference in pyopericardium, most authorities agree in considering it a delicate and hazardous operation, to be undertaken as a last resort, and only by means of the aspirator or a fine trocar and canula.

This treatment by the use of an exploring trocar was recommended by Bamberger and Friedreich, with the subsequent injection of chlorine water or iodine, or irrigation by detergent antiseptic solutions, and is referred to also by Fothergill, who regarded it as a forlorn hope, but thought it capable of yielding relief. The practice approved by F. T. Roberts is that of removal of the purulent collection by the aspirator; but he gives this recommendation with the warning that it should not be rashly practiced. Bristowe, who approves of surgical interference in pericardial suppuration, gives the details of the operation: the most eligible spot for puncture he considers to be one towards the inner extremity of the fourth or fifth interspace close to the sternum, and suggests that the tissues be divided with the scalpel, one by one, until the parietal layer of the pericardium is reached, and then to puncture carefully with a fine trocar and canula; believing it advisable also to wash out the cavity, he uses a weak solution of chlorinated soda or of potassium permanganate. The preliminary use of a fine aspirating needle for diagnostic purposes is suggested.

Dr. Austin Flint, Sr., says that in suppurative pericarditis aspiration is always indicated, but he also states that if after repeated aspirations pus continues to reaccumulate, it is very evident that a permanent opening into the pericardial cavity, with injections, affords the only hope of effecting a cure.

Dr. Samuel West, at a recent session of the Pathological Society of London, reported a case of purulent pericarditis treated by free incision, in a boy fourteen years of age: twenty-four ounces of pus were evacuated (*Medical Times and Gazette*, December 8, 1883). This makes the third case in which pericardium has been laid freely open for purulent pericarditis. Prof. Rosenstein reported the first case, of a boy whose pericardium had been opened and drained after it had been twice tapped, who recovered, in spite of a secondary attack of left-sided pleuritis. The second case had been under the care of Dr. Samuel West also; it was an idiopathic purulent pericarditis, in which the same treatment was followed by complete recovery. In the third case death occurred from other causes; the post-mortem showed a large abscess of the thigh; but the cavity of the pericardium had been nearly obliterated in the short space of two weeks. He expressed the opinion, in presenting this specimen for examination, that opening the pericardium is not a more hazardous proceeding than opening the pleura or the peritoneal cavity, if done with the same precautions.—*Medical Times.*

Microscopical Examination of Seminal Stains on Cloth.

Dr. F. M. Hamlin, of Auburn, N. Y., read a paper before the *American Society of Microscopists*, published in the "Proceedings" recently issued, on this subject. He says:

"Having occasion last January to examine some seminal stains on cloth, I sought to avail myself of the experience of others. I found that all writers on medical jurisprudence and microscopy, including such names as those of Taylor, Beck, Beale and Frey, to whom I had ready access, adopt and recommend the method of Dr. Koblanck, of Berlin, published in 1853, as follows:

"'Cut out the portion of cloth suspected; place it in a watch-glass with a few drops of distilled water; let it soak for a few minutes (variously stated from two to ten); stir it about with a glass rod, and then squeeze out the water with the fingers. This squeezing may be done directly upon the slide or into the watch-glass, whence a portion may be taken up by a pipette and transferred to a slide.'

"Following this plan with a piece of cloth known to be stained with semen, I obtained such poor results that I resolved to try some other method. Remembering how transparent a fine linen fabric appeared on a certain occasion when I was studying its fiber, I resolved to subject a portion of the cloth itself at once to the microscope. Taking a small piece of the linen and placing it upon a drop of water on a slide, I let it soak for a while, then put on a cover-glass and proceeded to examine it. Almost immediately I discovered a number of spermatozoa clinging to the fibers of the linen or lying in masses in the meshes. Encouraged by this success, I experimented with fabrics other than linen. In light colored silk the spermatozoa were detected quite as easily as in linen. A firm piece of cotton sheeting proved refractory, till I thought to unravel or fray out the ends, when I readily found the zoosperms adherent to the detached fibres."

The doctor then turned his attention to colored woolen goods, which were not enough transparent to render his plan practicable. But on shaving off a portion of the stained surface, which fell in a fine dust upon the slide, and moistening this dust, after soaking for a while, the spermatozoa were found even more readily than in the other experiments.

In the case of a clipping of a piece of stained linen, which he had treated according to the plan of Koblanck, he could find only one spermatozoa, where probably thousands had been deposited, to which he could have ventured to swear in a court of justice. But on another clipping, taken from the same stain and treated according to his own plan, he found the spermatazoa in quantities.

Dr. Hamlin says that he thinks Koblanck's method, with its soaking and manipulations, tends to destroy so many of the spermatozoa as to lessen greatly the certainty of finding them, and even has occasionally frustrated the ends of justice. He states:

"I, therefore, recommend the following procedures:

"1. If the stain to be examined is upon any thin cotton, linen, silk or woolen fabric, cut out a piece about one-eighth of an inch square, lay it upon a slide previously moistened with a drop of water, and let it soak for half an hour or so, renewing the water from time to time as it evaporates. Then, with a pair of needles, unravel or fray out the threads at the corners, put on the glass cover, press it down firmly and submit to the microscope.

"2. If the fabric is of such a thickness or nature that it can not be examined as above, fold it through the center of the stain, and with a sharp knife shave off the projecting edge thus made, catching upon a slide moistened with water the particles removed. After soaking a few minutes—say five to ten—the powdery mass will sink down through the water and rest upon the slide. The cover-glass may now be placed over and the dust examined.

"The latter plan serves as well for hairs, but great caution must be observed in cutting them lest the portions bearing the suspected deposit fly away and are lost."

Concerning the durability of spermatozoa, Dr. H. quotes Ritter, who asserts that he has discovered them after a period of four years. Dr. H., to show how, when dried, they will bear rough handling, says that he has rolled and twisted between his fingers a stained piece of muslin till it was in the form of a string, unrolled and twisted it over again two or three times, using much force; and yet was able by his method to discover spermatozoa without much difficulty.

He claims for his plan extreme simplicity, ease of execution and the greatest degree of certainty.

In the discussion that followed the reading of Dr. Hamlin's paper, Dr. Fels, of Buffalo, N. Y., reported the case of a rape upon a little girl between six and seven years old, by a president of one of the religious colleges of that city. The under garments, on which were the stains, had been in charge of an individual for two months previous to Dr. Fels' examining them microscopically. The method he adopted was to clip off a small portion of the material stained, soaking it in a small amount of water in a test-tube, giving the spermatozoa time to deposit. He then removed the deposit by a pipette and examined with different powers. After two or three hours' work he discovered several spermatozoa, which enabled him to give clear testimony in the case. The defendant was found guilty and sentenced to prison for a term of five years. Dr. Fels says that he was told by one of the jurors, after the trial, that without his evidence and that of the defendant himself, a conviction would not have taken place. We can not understand how that, in this case, it took two or three hours' work to discover the zoosperms, after the preparation of the slide.

Dr. Stillson spoke about blood stains. In such cases he said that he used glycerine and water as a restoring medium, 1 part to 4. This allows the corpuscles to expand slowly, and, at the same time, acts as a preserving medium. Slides in this way can be immediately finished by some hard mount whenever the corpuscles attain their maximum swelling. They will then keep indefinitely. The mode of identification practiced by him in a case of murder, in which he had been called upon to examine blood stains on clothing, on a hatchet, and upon walls of the house, was that of comparison. The three kinds of corpuscles were measured under the same circumstances and course of treatment, and were found to average $\frac{1}{3200}$ of an inch in diameter. In some cases he tried to stain the restored corpuscles, but he found that it changed their behavior very greatly. Some of them swelled enormously, while others either shrank or became suddenly arrested in the process of restoration, and then their diameters varied all the way from $\frac{1}{2700}$ to $\frac{1}{6600}$ of an inch. In comparing these specimens of corpuscles with each other, they were also compared with his own blood dried on fabrics and treated in precisely the same manner. The blood of any animal may thus, he said, be dried, treated in precisely the same manner, compared, and within very close limits be identified. The corpuscles of the dog, rabbit and ape, he believed, are the nearest to those of man. In this case, he could not distinguish dog's blood from human.

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Fine Rulings on Glass.—Since the decease of Nobert, the eminent ruler of lines upon glass, it has not yet been demonstrated whether his ability to make fine rulings will ever be equaled by that of any one. Most unfortunately for science, he kept secret his method of procedure and his secret died with him. Since his death, it is considered that Mr. Fasoldt, of Albany, stands first in the art of fine ruling, and Prof. W. A. Rogers, of Cambridge, Mass., second. This latter gentleman read a paper upon the subject before the "American Society of Microscopists," at its last meeting, which contains very much interesting information.

As is known, the old pattern of Nobert's rulings contained numerous bands of lines of gradually increasing fineness, made by a diamond point or edge. Of these bands, the finest objective ever made has not been able to go beyond the nineteenth in resolving the lines. Dr. J. J. Woodward, of the Army Medical Museum, was the first microscopist to resolve the nineteenth band and photograph it. Nobert professed to rule bands beyond the nineteenth, but no lens has as yet been made that will show them. But it has been only within a few years that lines could be seen beyond the seventeenth band.

Mr. Fasoldt claims that he has ruled lines one million to the inch, but the claim is not generally acknowledged.

With these introductory remarks we will make some quotations from the paper of Prof. Rogers. He first gives attention to Fasoldt's rulings, stating: "I have shared in the general incredulity with which Mr. Fasoldt's claim has been regarded. Indeed I think he has placed the limit a *trifle* too high. But if the limit is reduced one-half, I am by no means sure but that it may be reached. But what evidence have we that it is possible to see single lines of this degree of fineness, granting that it is possible to produce them? The answer to this inquiry involves another inquiry, viz.: has the microscope reached its highest visual possibilities? Here it is necessary to draw a sharp distinction between visibility and resolution.

"In the matter of limit of resolution it must be admitted that little or no progress has been made since the resolution of Nobert's nineteenth band. The distinguishing feature of Nobert's lines is a certain boldness which enables them to be photographed, and it is to photography, supplemented by the statement of the maker, that we owe the certainty of the resolution of the nineteenth band. But all attempts to go beyond this band, even with Nobert's later plates, have proved failures. I can not learn that any one has yet succeeded in photographing a Fasoldt plate as high as 100,000 to the inch. Certainly various attempts which have been made with bands of my own ruling higher than about 70,000 have not been successful. There are several Nobert plates of the new pattern in this country. They run as high as 240,000 lines to the inch, but who has gone beyond the number of lines in the nineteenth band? With great respect for the honest belief of several microscopists who claim to have resolved Fasoldt's bands as high as 152,000 to the inch, I must yet hold to the opinion that in no case has the resolution been proved by a test which will generally be accepted by microscopists. There is one test, and only one, which is absolutely decisive, viz.: the one originally proposed by Nobert, that of ruling a definite number of lines in a band of given fineness and keeping the number secret until the microscopist could give the correct count, not merely in one instance but in several. Even here we must depend upon the honesty of the maker in revealing the correct count. Has the correct account been made in any Fasoldt plates as high as 100,000 to the inch? I think not. Has it been done with any band of my own ruling? No."

Prof. Rogers closed his paper with the suggestion that "the increase in the efficiency of the microscope will probably come from the better manipulation of the light under which an object is viewed."

As regards the ruling of lines which can not be seen by any objective, Prof. Rogers says that he believes such lines exist. He states: "I found my belief upon two bits of evidence; first, the pressure of the diamond upon the glass was sufficient to produce the lines. With considerable less pressure there would still have been a constant contact between the diamond and the glass. Second, I saw them ruled through the sense of hearing. When a diamond does its very best work it produces a sharp, singing tone, which is audible at a distance as great as twelve inches. This singing tone I distinctly heard for every line ruled. It is even more marked in ruling the finest lines than in coarse ones. I have two singing diamonds, or rather two diamonds with singing crystals, and these two are the ones with which I have done my best work."

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ROBERT B. TOLLES.—The death of Robert B. Tolles was briefly announced in the December number. The Boston *Herald* of November 20 contained the following brief summary of Mr. Tolles' business career:

"Mr. Robert B. Tolles, of the Boston optical works, who died at the Massachusetts General Hospital on the 17th instant, had a world-wide reputation as a maker of microscopes, and particularly as a maker of microscope objectives, such as are required by and used in the highest class of scientific work. He also contributed as much, if not more than any other optician, towards developing that instrument and bringing it to its present high state of perfection.

"Mr. Tolles was born in Connecticut sixty-two years ago, but at an early age went to New York, where, while yet a young man, he entered the employ of the firm since widely known as Spencer & Son, optical instrument makers. With the senior member of the firm, Mr. Charles A. Spencer, then at Canastota, he learned the business of grinding lenses and the mechanical construction of microscopes and telescopes. After being with Mr. Spencer a number of years, he set up for himself in the same line of business in the same town. He remained there until 1866, when he came to Boston, and, in connection with Mr. Charles Stodder, founded the Boston optical works, which business connection continued until his death; and it was here that most of his reputation as a maker of first-class objectives for the microscope was obtained. Although not the discoverer of immersion objectives, he at once recognized their great value, and was among the first to manufacture them. Mr. Tolles was the inventor of many valuable accessories, both of the microscope and telescope, but, undoubtedly, his greatest achievement in this direction was his demonstration of the practicability of the homogeneous immersion objective and its superiority over other lenses. This he demonstrated in 1871, but owing to the fact that at that time Canada balsam was the only fluid known to possess the same refractive index as crown glass, his discovery remained useless until 1877, when Prof. Abbe discovered a fluid which was practical for such a purpose. Since then a large number of such objectives have been made and numerous discoveries made by their use, which would have been impossible with the old water-immersion lenses.

"Mr. Tolles was a very quiet, unassuming gentleman, who devoted his whole life to his work. He had not been in health for a long period of time, having been a sufferer from a chronic lung disease which most persons would have succumbed to years before. In his death the scientific world has sustained a great loss."

Book Notices.

The Field of Disease. A Book of Preventive Medicine. By Benjamin Ward Richardson, M. D., LL. D., F. R. S., Fellow of the Royal College of Physicians, etc. *Homines ad deos nulla re proprius accedunt quam salutem hominibus dando.* Cicero. 8vo. Pp. 737. Philadelphia: Henry C. Lea's Son & Co. Cincinnati: R. Clarke & Co. Price, $4.00.

We will state the object of this work in the author's own words: "I have written this work for those members of the intelligent reading public who, without desiring to trench on the province of the physician and surgeon, or to dabble in the science and art of medical treatment of disease, wish to know the leading facts about the diseases of the human family, their causes and prevention. Any one, therefore, who opens this book with the expectation of finding in it receipts and nostrums will not have that expectation fulfilled, and will discover no reference to remedies except such as are purely preventive in character."

The work is divided into Book I, II, and III. Book I is divided into three Parts. The first Part treats of "General Diseases Affecting Mankind; the second Part is devoted to "Local Diseases;" the third Part considers "Diseases from Natural Accidents." Book II is devoted to the discussion of "Acquired Diseases"—Part the first of it treating of "Acquired Diseases from Inorganic and Organic Poisons;" Part second, "Acquired Diseases from Physical Agencies, Mechanical and General;" third Part, "Acquired Diseases from Mental Agencies, Moral, Emotional, and Habitual." The first Part of Book III considers the "Origins and Causes of Disease;" the second Part, "Practical Summary of Preventions of Disease."

Although the work has ostensibly been written for the "intelligent reading public," yet physicians will find in it a large amount of very valuable information—in fact, quite as much so as if it had been written for them exclusively. They will find it valuable in that it treats quite exhaustively the causes of disease, and the methods of prevention. Dr. Richardson, one of the most eminent of the physicians of England, has made a special study of these subjects, and there is no one who is a higher authority upon them.

As hygiene and the causes and prevention of disease are subjects which, nowadays, every intelligent person is expected to be conversant with, we will say to all such that there is no work better adapted to give them information. While there is an avoidance of newly invented technical expressions and recently coined words, that are inundating present medical literature, in plain language, a very intelligent description of the various diseases is given, their causes discussed, and the means of preventing them set forth. The work has not the slightest resemblance to a compilation of a practice of medicine for popular use, but sets forth the results of the investigations and experience as to the relation between health and disease, describing the symptoms of the various diseases, so as to differentiate them, in an intelligent manner. As a work for physicians, we can, without hesitation, indorse what has been said in regard to it that there is no work in the language in which the information here presented can be sought, systematically arranged, and intelligibly presented.

A TREATISE ON BRIGHT'S DISEASE OF THE KIDNEYS: Its Pathology, Diagnosis and Treatment. With Chapters on the Anatomy of the Kidney, Albuminuria, and the Urinary Secretion. By Henry B. Willard, M. D., A. M. With Numerous Original Illustrations. 8vo. Pp. 246. New York: William Wood & Co.

The author states that this volume is the result of the experience of nearly twenty-six years of hospital and extensive private practice, and of several years' study, in the laboratory, of pathological and healthy kidneys of men and animals. The illustrations were all drawn by himself with the exception of some two or three, taken from other works, and some four which were drawn for him from his own preparations.

This work will not be found to be a mere compilation from other works. It contains the results of the author's own investigations and reflections. Every page exhibits evidence of close study of the subject treated, and independent thought, and contains information of the most interesting and valuable character.

On page 61, on treating of the significance of urinary casts, it is quoted from Charcot, where he says that he thinks "the importance of urinary casts has been greatly exaggerated. They are not, as they have been called, 'faithful messengers announcing to the clinical observer the anatomical condition of the kidney.' Hyaline casts may be found in the urine in normal conditions." On the contrary, our author states that casts are never found in normal conditions of the kidney, and our experience coincides with this statement. In evidence he says: "1. In a very large number of microscopical examinations of urine from which albumen was absent, I have never in a single case found a hyaline cast without finding in the same specimen epithelia from the tubules, with pus. 2. In a very large number of microscopic examinations of the kidney itself, I have never found casts without the presence in the same specimen of other evidences of inflammation, as swollen epithelia, thickening of the connective tissue, pus, and blood corpuscles, fatty degeneration, etc. 3. I am confident, from my researches, shown, for the first time, in June, 1882, in the N. Y. *Med. Jour.*, that the formation of every cast is accomplished by the destruction of the epithelia lining the tubule, which lost or perished epithelia are invariably replaced by an endothelial investment, which had not previously existed, of the structureless membrane."

There is very much in the work which would be quite interesting to quote, but we have not the space. It will well repay the reader to procure a copy. We feel assured that an attentive perusal of the work by the general practitioner will greatly increase his knowledge of the interesting disease known as Bright's Disease.

A Manual of Practical Hygiene. By Edmund A. Parkes, M. D., F. R. S., Late Professor of Military Hygiene in the Army Medical School, etc. Edited by F. S. B. Francois De Chaumand, M. D., F. R. S., Fellow of the Royal College of Surgeons of Edinburgh, etc. Sixth Edition, With an Appendix, Giving the American Practice in Matters Relating to Hygiene. Prepared by and Under the Supervision of Frederick N. Owen, Civil and Sanitary Engineer. Volume II. 8vo. Pp. 556. New York: Wm. Wood & Co.

We noticed the first volume of this valuable work in the December issue of the Medical News. The first volume formed the September volume of "Wood's Library of Standard Medical Authors," while this, the second volume, constitutes the November number of the same series.

As we stated in noticing the first volume, there is an abundance of works upon all the various diseases to which humanity is liable, but the number is comparatively limited of those devoted to the prevention of disease. And yet the advance that is being made in medicine, and has been made in the last twenty or twenty-five years, in prolonging life is ten to one in the way of preventing disease to curing it after it has been established. Epidemics, that used to sweep over the earth, decimating the inhabitants, are either robbed of their terrors or no longer prevail. Many places noted for their insalubrity in former times, are now as healthy as other localities, and the inhabitants live to a good old age.

Every physician should be well informed in regard to the causes and prevention of disease. More than ever before, at the present time, is such knowledge called into requisition. Even the intelligent laity are more or less informed upon such subjects, and for a physician not to be would be disgraceful, even if there was no higher motive. Boards of Health are becoming common, as an evidence of the general interest there is being taken in hygiene, and the practitioner of medicine is being constantly called upon for information.

The work of Dr. Parkes, we consider, should be in the library of every physician. It treats, in quite an exhaustive manner, the many causes of disease, and discusses at length the methods of prevention. It is fully abreast of the present time in its information. Having reached a *sixth edition* is the highest evidence of the great favor which it has met.

A Treatise on Pharmacy; Designed as a Text-book for the Student, and as a Guide for the Physician and Pharmacist, Containing the Officinal and Many Unofficinal Formulas, and Numerous Examples of Extemporized Prescriptions. By Edward Parrish, Late Professor of Theory and Practice of Pharmacy in the Philadelphia College of Pharmacy, etc. Fifth Edition, Enlarged and Thoroughly Revised. By Thos. S. Wiegand, Graduate of the Philadelphia College of Pharmacy. With 256 Illustrations. 8vo. Pp. 109. Philadelphia: Henry C. Lea's Son & Co. Cincinnati: R. Clarke & Co. Price, in leather, $6.00.

Parrish's Pharmacy is a well-known standard work, which is found in very many apothecary stores. It would be difficult to find a more complete work, for it contains minute information upon every subject pertaining to pharmacy. So full and accurate is it, in fact, that an individual having a knowledge of chemistry and materia medica would only need its attentive study to qualify him to become a practical pharmacist.

The first chapter of the first part is devoted to the description of the arrangement of a dispensing store—the furniture and implements. The second chapter of the same part is taken up in describing the cellar, storeroom and laboratory. The second part has several chapters describing pharmacopœias, weights, measures, and specific gravity, temperature, generation of heat, etc., modes of measuring, regulating and applying heat for pharmaceutical purposes. It will thus be seen that everything pertaining to carrying on practical pharmacy receives detailed attention, so that one can not fail in the study of it alone to become informed in its manipulations.

Besides the parts to which we have alluded, there are parts three, four, five, six and seven, and an appendix. These parts are devoted to Pharmaceutical Processes and Apparatus, Inorganic Pharmaceutical Chemistry, Galenical Pharmacy, etc. The descriptions of the processes for making the various chemical preparations and pharmaceutical compounds are according to the most recent and most approved methods.

This new edition has been made to conform to the late revision of the U. S. Pharmacopœia and to the great advance in chemical and pharmaceutical science. It has been necessary to considerably increase the size of the volume. The new preparations of the Pharmacopœia have been introduced, together with its tests for chemical and officinal compounds, and its system of parts by weight in place of definite quantities.

Elements of Human Physiology. By Henry Power, M. B. Lond., F. R. C. S., Ophthalmic Surgeon to St. Bartholomew's Hospital, London, etc. Illustrated with 47 Engravings. 16mo. Pp. 389. Philadelphia: Henry C. Lea's Son & Co. Cincinnati: R. Clarke & Co. Price, $1.50.

This little work forms one of the "Manuals for Students of Medicine," a number of which we have already mentioned, which are in process of publication by Messrs. Henry C. Lea's Son & Co. As we have before stated, the object of these manuals is to afford students of medicine a set of text-books on the various branches of medicine of sufficiently small size to be carried in the pocket, and be convenient for consultation at any time. For students in attendance upon lectures, it seems to us that they will be considered as almost indispensable.

In this little work upon physiology will be found treated, in a satisfactory manner, the various subjects usually treated in a work of the kind, as the blood, blood vessels, heart's action, respiration, food, digestion, functions of the liver, nervous system, animal heat, urine, muscular movement, the senses, etc. It is wonderful, when all unessential verbiage is omitted, and lengthy discussions avoided, how large an amount of information, quite full in details, may be given upon a few pages. On glancing through this little work, of a size permitting it to be easily carried in the coat-pocket, all the various subjects pertaining to physiology seem to be very fully described—nothing essential apparently having been omitted. Even practitioners of medicine will find it exceedingly convenient to consult in order to refresh their minds. We have no doubt it will be greatly in demand by medical students.

The Dissector's Manual. By W. Bruce-Clarke, M. A., M. B., F. R. C. S., Senior Demonstrator of Anatomy and Operative Surgery at St. Bartholomew's Hospital, etc., and Charles Barrett Lockwood, F. R. C. S., Demonstrator of Anatomy and Operative Surgery at St. Bartholomew's Hospital, etc. Illustrated with 49 Engravings. 16mo. Pp. 390. Philadelphia: Henry C. Lea's Son & Co. Cincinnati: R. Clarke & Co. Price, $1.50.

This little work belongs to the series of "Manuals for Medical Students," which are being issued by the Messrs. Lea's Son & Co. It will certainly become very popular among medical students, since it has merits of a high order to recommend it. Of small size, like its fellows, yet it is sufficiently minute in its details to afford an intelligent understanding of the structures of the body as they are disclosed to view in the process of dissecting.

The authors have described far more fully than is usually done how to find the various structures, and we have endeavored to state clearly what the student may expect to see, and what he must either take for granted or use special modes of preparation to demonstrate. Anatomy, more than any other branch of medical study, is capable of accurate and exact demonstration; and the student ought clearly to understand that, if much is conjectural in physiology or medicine, this is not the case with visible anatomy.

Students engaged in dissecting will be highly pleased with the work, since they will find it to meet their wants so well.

Veterinary Medicine and Surgery in Diseases and Injuries of the Horse. Compiled from Standard and Modern Authorities and edited by F. O. Kirby. Illustrated by Four Colored Plates and 168 Wood Engravings. 8vo. Pp. 350. New York: William Wood & Co.

This work belongs to the series of "Wood's Library of Standard Medical Authors" for 1883. It has been prepared, as it is stated, with a desire to present, in a concise form, a practical manual of the diseases and injuries of the horse, and their treatment, for the use of practitioners of medicine and other intelligent horse owners. Very many physicians are owners of one or more horses, and very naturally take an interest in their affections when ailing. But as a horse is not a human being, and has diseases peculiar to himself, while those affections to which he is liable in common with man, are modified by his different nature, the physician of the "lords of creation," before he can properly understand the ailments of the horse, must first give some attention to their study. But having a knowledge of comparative anatomy and physiology, and a knowledge of the general principles of pathology, he does not need such works as are suited to the professional veterinarian.

Our knowledge of veterinary medicine is very limited, but a glance through the present work has impressed us very favorably with it. It seems to us to be well adapted for the purposes for which it has been prepared, and will prove very acceptable and valuable to physicians. It has been compiled from the very best sources, such as the works of Percivall, Fitzweigram, William, Youatt, Hayes, Gamgee, Mayhew, Dun, Walsh, Blain, Armitage, etc.

Editorial.

NOTICE.—If some of the subscribers of the MEDICAL NEWS, who are indebted for subscription, should not receive the journal after this number, they may feel assured that they have been cut off for non-payment. We desire to be accommodating, but we can not continue to send the journal from year to year without remuneration. The printer expects to be paid, and we must receive the small price charged each subscriber in order to pay him. If every subscriber paid us we would not become enriched by the profits. Let it be considered—a volume of the MEDICAL NEWS, price two dollars, contains 900 pages—an amount of reading matter for which a medical book publisher would charge at least six dollars.

The most profitable and the most valued subscribers of a medical journal are not those who let their subscriptions run for two or three years, and then remit for all that time, but are those who, each year, pay promptly in advance. May we not hope that remittances for the present year will be sent without delay?

A BILL CREATING A BOARD OF HEALTH AND REGULATING THE PRACTICE OF MEDICINE AND SURGERY IN THE STATE OF OHIO.—Just as we are about completing the present issue of the Medical News, we have received from the Hon. Judge A. J. Pruden, a member of the Ohio Legislature from this county, a bill, which is now before the Legislature of Ohio, and awaiting passage, to create a Board of Health and to regulate the practice of medicine in the State of Ohio.

We have only had time to hurriedly glance through the bill, and consequently are but little prepared to pronounce upon its merits. What strikes us most unfavorably after our very limited examination is the power, without appeal or redress, that is proposed to be given to the persons who will constitute the Board of Health.

By the provisions of the bill, the Governor of the State, by and with the advice and consent of the Senate, shall appoint seven persons, who shall constitute the "State Board of Health of Ohio." They shall hold their office for the term of seven years. At least five members of the Board shall be physicians in good standing, and of recognized professional and scientific knowledge, and graduates of reputable medical schools. Of course the Governor alone is to be the judge of these prescribed qualifications. The Board shall have general supervision over the health and sanitary interests of the State, etc. * * * *

Whenever the Board is *satisfied* that any malignant, contagious, or infectious disease exists in any city, district, or part of the country to such an extent as to endanger the lives of the inhabitants of any part of the State of Ohio having direct communication with such infected city, district, or part of the country, the Board shall have power, by a majority vote, to establish quarantine regulations in such infected places, and may determine and regulate to what extent and *by whom* any communication or business transaction with such infected city or district may be had, and establish such rules and regulations as may be deemed necessary to prevent the introduction and spread of such diseases; and it shall be the duty of all public officers, sheriffs and constables, and other executive officers of the State, to assist the State Board of Health to carry out the provisions of this act.

It occurs to us that these are most extensive powers to be given to a very few men who are not made responsible to any one, and from whose decisions there is no appeal. If it could be insured that the members of the Board would be highly intelligent men, conscientious in the discharge of all their duties, incapable of being influenced by partisan motives, and not amenable to bribery, we would have no apprehensions that they would abuse their powers, however great they might be; but unless there could be a guarantee that they would be persons of the proper qualifications, we would hesitate very much in clothing them with powers, without appeal or address of any kind, by which they could destroy, under pretenses of looking after the health of the people of the State, the material prosperity of the State, or could cripple the commerce or manufacturing interests of one part of the State in order to build up that of another. Or, if no selfish or partisan motives were to be subserved, the ignorance of the members might bring about great harm if they alone were the judges of what should be the proper measures to be instituted in case of infectious diseases, and could employ their own way to become "*satisfied.*" But we have not space to comment further, and extend our remarks, but will hasten to mention other powers and duties of the Board.

It is further stated as regards the action of the Board when any malignant, infectious, or contagious disease is epidemic in the State, that the Board shall make such rules and regulations as they may deem advisable for the enforcement of quarantine in infected and other districts, and take such steps and adopt such measures as they may consider essential to prevent the introduction of such diseases.

It is enacted that the Board shall have supervision of the registration of births and deaths; and shall prescribe such forms and recommend such legislation as shall be deemed necessary for a thorough and complete registration of vital and mortuary statistics. The Secretary shall be the superintendent of such registration. This is all very well, providing that an onerous amount of labor is not forced upon physicians without remuneration. Aside from their scientific interest, physicians have no other interest in the vital and mortuary statistics than have other people.

Section 8 enacts that it shall be the duty of all physicians, surgeons, and accoucheurs in this State to register their names, as provided by law, with the County Clerk of the county wherein they reside, and said physicians, surgeons, and accoucheurs shall be required, under a penalty of ten dollars, to report to the County Clerk within thirty days from date of occurrence, all births or deaths which may occur under their supervision (we wonder if doctors supervise deaths), with a certificate of cause of death and such correlative facts as the Board may require.

The Board shall meet in January and July of each year, and such other times as they may deem expedient. The January meeting shall be in Columbus. They shall choose from their number a President, Vice-President, and Secretary. The Secretary shall perform such duties as may be prescribed by the Board and the act of the Legislature; he shall receive a salary which shall be fixed by the Board; also his traveling expenses in the performance of his official duties. The other members shall receive no compensation; but their traveling *and other expenses*, while employed in the business of the Board, shall be paid.

The Board of Health shall take cognizance of any fatal disease which may be prevalent among the domestic animals of this State, and ascertainthe nature and causes of such disease.

The sum of $6,000, or so much thereof as may be necessary, is appropriated to pay the salary of the Secretary, meet the expenses of the office, and all costs of printing, which, together, shall not exceed the sum appropriated.

We give what follows below, beginning at section 20, verbatim:

SEC. 20. Every person practicing medicine and surgery, in any of their departments, shall possess the qualifications required by this act. If a graduate of medicine, he shall present his diploma to the said State Board of Health for verification as to its genuineness. If the diploma is found to be genuine, and if the person named therein be the person claiming and presenting the same, the State Board of Health shall issue its certificate to that effect, signed by at least four of the members thereof, and such diploma and certificate shall be deemed conclusive as to the right of the lawful holder of the same to practice medicine in this State. If not a graduate, the person practicing medicine in this State shall present himself before said Board and submit himself to such examination as the said Board shall require, and if the examination be satisfactory to the examiners, the said Board shall issue its certificate in accordance with the facts, and the lawful holder of such certificate shall be entitled to all the rights and privileges herein mentioned.

SEC. 21. The State Board of Health shall issue certificates to all who shall furnish satisfactory proof of having received diplomas or licenses from legally chartered medical institutions in good standing, of whatever school or system of medicine; they shall prepare two forms of certificates, one for persons in possession of diplomas or licenses, the other for candidates examined by the Board; they shall furnish to the county clerks of the several counties a list of all persons receiving certificates; provided, that nothing in this act shall authorize the Board of Health to make any discrimination against the holders of genuine licenses or diplomas under any school or system of medicine.

SEC. 22. Said State Board of Health shall examine diplomas as to their genuineness, and if the diplomas shall be found genuine as represented, the Secretary of the State Board of Health shall receive a fee of one dollar from each graduate or licentiate, and no further charge shall be made to such applicant, but if it be found to be fraudulent or not lawfully owned by the possessor, the Board shall be entitled to charge and collect twenty dollars of the applicant presenting such diploma; the verification of the diploma shall consist in the affidavit of the holder and applicant, that he is the lawful possessor of the same, and that he is the person therein named; such affidavit may be taken before any person authorized to administer oath, and the same shall be attested under the hand and official seal of such officer, if have he a seal. Graduates may present their diplomas and affidavits as provided in this act, by letter or proxy, and the Board of Health shall issue a certificate as though the owner of the diploma was present.

SEC. 23. All examinations of persons not graduates or licentiates shall be made directly by the Board, and the certificates given by the Board shall authorize the possessor to practice medicine and surgery in the State of Ohio.

SEC. 24. Every person holding a certificate from the State Board of Health shall have it recorded in the office of the County Clerk of the county in which he resides, and the record shall be indorsed thereon; any person removing to another county to practice medicine and surgery, shall procure an indorsement to that effect from the Clerk of the County Court, and shall have the certificate recorded in the office of the Clerk of the county to which he removes, and the holder of the certificate shall pay to said Clerk of said county the usual fees for making the record.

SEC. 25. The County Clerk shall keep in a book provided for the purpose, a complete list of the certificates recorded by him, with the date of the issue. If the certificate be based on a diploma or license he shall record the name of the medical institution conferring it, and the date when conferred. The register of the County Clerk shall be open to public inspection during business hours.

SEC. 26. Examinations may be made in whole or in part, in writing, and shall be of an elementary and practical character, but sufficiently strict to attest the qualifications of the candidate as a practitioner.

SEC. 27. The State Board of Health may refuse certificates to individuals guilty of unprofessional or dishonorable conduct, and they may revoke certificates for like causes, after giving the accused an opportunity to be heard in his defense before the Board.

SEC. 28. Any person shall be regarded as practicing medicine within the meaning of this act who shall append to his name the letters "M. D.," or suggest, recommend, or prescribe, direct or employ as a matter of business, or for a fee, for the use of any person, any drug, appliance, apparatus or other agency, whether material or not material, for the treatment, cure, relief, or palliation of any real or supposed ailment, or disease of mind or body, or for the treatment, cure, or relief of any wound, fracture, or other bodily injury or infirmity, or deformity: but nothing in this act shall be construed to prohibit students from prescribing under the supervision of a preceptor, or to prohibit gratuitous services in cases of emergency; and this act shall not apply to commissioned surgeons of the U. S. army, navy, and marine hospital service.

Not having had a proof of the printed bill in hand more than a couple of hours, and our attention occupied in giving our readers an outline of it, we have not had time to give it sufficient reflection to mature conclusions in regard to it. As we have already stated, however, it occurs to us that the bill is objectionable in that there is afforded no opportunity for appeal or address, in case of any real grievance, from any action of the Board. Supposing any school of medicine or physician has had the mishap to incur the displeasure of a number of members of the Board, it occurs to us they could greatly injure, at their pleasure, without there being any opportunity for redress. Our observation convinces us that it is not a desirable condition to be in the power of weak, selfish men. When David was given the liberty to choose how he should be punished for the sin of numbering the Children of Israel, he requested that he should not fall into the power of man, for his experience had shown him that his fellow creature was as remorseless and cruel as the lower animals. The Board, if we are not mistaken, would have it in its power, without appeal, to declare any medical college, in consequence of some pretended irregular action, not in good standing, and so compel all of its graduates in the State to undergo an examination or not be permitted to practice medicine. Again, they are the sole judges, in case of an examination, of the kind of an examination that would constitute a fair one, and whether or not it had been satisfactory. In many cases it would probably be but a farce, and not at all a test of proper qualifications.

A very objectionable feature in the bill, we consider, is that the Governor alone selects the members of the Board. Every one who is informed in regard to the kind of Governors Ohio has had for quite a number of years, will feel very sure that no other than political qualifications would have weight in selecting members of the Board. It is not improbable that not a few of them would be men who had become infamous for their political subserviency, without a qualification, mental or moral, for the position. We hope a bill may pass at this session of the Legislature to create a State Board of Health, but it should be so framed as to insure that those appointed upon it will be men of high moral character, able, and well known to be of extensive scientific acquirements.

TROUBLE IN THE INSANE ASYLUM AT TOLEDO.—We learn by the newspapers that there has been trouble in what, we believe, is called the Northwestern Lunatic Asylum of the State, situated at Toledo, O., which has resulted in the resignation of the Superintendent, Dr. Lawless, although he was sustained by the Commissioners in an examination before them. According to the accounts, there was in the institution a hopelessly insane woman who had been, for years, in the habit of biting and tearing to pieces, with her teeth, everything she could lay hold of with them. Witnesses stated that unless she was kept constantly in restraint, by some means or other, she would tear to pieces the clothing on her body, and the bedclothes. When her hands were confined by gloves or mittens with straps, she employed her teeth. In a number of instances she had severely bitten attendants and patients; and in a case or so, she had nearly bitten a finger off. In consequence of her great proclivity to bite, it was testified by attendants, she was exceeding dangerous to all about, especially weaker patients.

After a long and wearisome experience with her in the way of employing all sorts of methods of restraint, and feeling responsible for any maiming of other patients she might inflict, if by accident or carelessness of any attendants having her in charge she might free herself from the restraints it was necessary for her to constantly be wearing, and also feeling himself liable to blame for her great destruction of clothing of all kinds, Dr. Lawless removed six of her front teeth, four of which were decayed. After the extraction of these teeth it was stated that her health materially improved, for she no longer had the opportunity of swallowing pieces of clothing and other indigestible materials that her rending with her teeth supplied her.

Now, we presume, if Dr. Lawless had not had very bitter enemies in the character of attendants discharged for cruelty to patients and other causes, and contractors dismissed for dishonesty in the supplies they furnished, etc., and outsiders laying in wait for his position, the extraction of this patient's teeth would never have been heard of. But as these circumstances existed, an excitement was stirred up in Toledo that eclipsed that following upon the most revolting murder ever committed in that place. We have no acquaintance with Dr. Lawless, never having met him in our life, and not knowing that there was such a man until we heard of this trouble: therefore we have no interest in this affair, other than a natural desire that he should receive fair play. If a man at Toledo had had an assault and battery committed upon him and several of his front teeth knocked out, we feel quite sure that a magistrate would consider his assailant sufficiently punished if he fined him $25, and we feel sure that there would not be a ripple of excitement as regards the loss of the teeth. We do not wish to be understood that we place no value upon front teeth, for we do. They are excellent for biting and tearing or rending the food into mouthfuls, but they are not employed for mastication. To a lunatic who had to have her hands confined all the time, and her food, therefore, cut into mouthfuls for her, they would be of minimum use.

We do not know whether Dr. Lawless was justified or not in extracting the teeth complained of, as we would not pass judgment without personal knowledge of the case. We would make extracting the teeth of an insane patient a dernier resort. It seems to us, however, from the facts brought to our attention, that selfish motives and feelings of revenge on the part of the enemies of Dr. Lawless, had more to do with the furious excitement gotten up in consequence of the extraction of the teeth of an insane person by him, than for any real horror of the act. These same parties, who took the most active part against the doctor, would probably become aware of the most outrageous cruelty in some other way and scarcely mention it to any one.

MEDICAL THOUGHTS OF SHAKESPEARE.—This is the title of a pamphlet, which we have recently received, compiled by B. Rush Field, M. D., of Easton, Pa. It contains the lines from the works of Shakespeare, in which that famous writer mentions physicians or alludes to diseases or the healing art. We are informed that Shakespeare did not hold the physician in very high esteem, and generally treats him with contempt. We confess that, in our reading of his works, not having the subject in mind, we have not observed how he seemed to be impressed towards the followers of Esculapius. But even if, in some of his dramas, he does introduce a quack whose ignorance of what he professes to know and his impostures are exposed in contemptuous terms, it does not follow that he had no respect for the true physician. There is little doubt but that if Shakespeare himself had had "a boil, a plague-sore, an embossed carbuncle in his corrupted blood," he would speedily have summoned some practitioner of the healing art to prescribe for him.

Dr. Field makes but one quotation in which an opinion is expressed in regard to the physician, but this is uttered by the crazy Timon of Athens—Act IV., Scene 3.

Timon to Banditti:

"Trust not the physician;
His antidotes are poison, and he slays
More than you rob."

But that Timon's mind was in a very morbid condition, and his utterances of a like kind, is clearly shown by the following quotation, which is not among Dr. Field's:

"The sun's a thief, and with his great attraction
Robs the vast sea; the moon's an arrant thief,
And her pale fire she snatches from the sun;
The sea's a thief, whose liquid surge resolves
The moon into salt tears; the earth's a thief,
That feeds and breeds by a composture stolen
From general excrement; each thing's a thief;
The laws, your curb and whip, in their rough power
Have unchecked theft. * * * * *
All that you meet are thieves: To Athens, go,
Break open shops; nothing can you steal,
But thieves do lose it."

Again it is quoted, in relation to Dr. Pinch, in "Comedy of Errors," Act V., Scene 1.

"They brought one Pinch, a hungry, lean-faced villain,
A mere anatomy, a mountebank,
A thread-bare juggler, and a fortune-teller;
A needy, hollow-ey'd, sharp-looking wretch,
A living dead man: this pernicious slave,
Forsooth, took on him as a conjurer,
And, gazing in mine eyes, feeling my pulse,
And with no face, as 'twere, out-facing me,
Cries out I was possessed."

The general knowledge of Shakespeare was, indeed, most remarkable. With his other knowledge, he had a most remarkable acquaintance with men. He was most intimately conversant with the passions, and feelings, and motive impulses of the heart. Experts say that he is the only dramatist whose representations of an insane person are perfect.

Dr. Field quotes from Macbeth, Act V., Scene 4, in which will be observed some very familiar lines:

King Macbeth—How does your patient?
Doctor—Not so sick, my lord,
As she is troubled with thick-coming fancies
That keep her from her rest.
King Macbeth—Cure her of that.
Canst thou not minister to a mind diseased;
Pluck from the memory a rooted sorrow;
Raze out the written troubles of the brain;
And, with some sweet oblivious antidote,
Cleanse the stuff'd bosom of that perilous stuff
Which weighs upon the heart?
Doctor—Therein the patient
Must minister to himself.
King Macbeth—Throw physic to the dogs.
I'll none of it.

Dr. Field's little work, we believe, professes to quote all the lines of Shakespeare in which allusion is made to physicians, diseases, their symptoms and the healing art. Thus having all such lines culled out and presented before one, causes one to feel that the compiler has rendered a very gracious service.

MEDICAL BILLS INTRODUCED IN CONGRESS last week are as follows:

H. R. 2697, introduced by Mr. Randall, of Pennsylvania, to prepare and publish a National Pharmacopœia for the United States, which was read a first and second time, referred to the Committee on Ways and Means and ordered to be printed.

H. R. 2785, introduced by Mr. Young, of Tennessee, to amend an act entitled "An Act to prevent the introduction of infectious and contagious diseases into the United States, and to establish a National Board of Health," which was read a first and second time, referred to the Committee on Public Health and ordered to be printed.

S. 982, introduced by Senator Miller, of New York, for the maintenance and support of the Marine-Hospital service. Read twice by title, referred to the Committee on Commerce and ordered to be printed.

In addition to the above, a bill has been introduced in the Senate providing for the establishment of a "University of Medicine." $1,000,000 is asked for as an endowment fund, and $100,000 for building purposes. There are to be eclectic, homœopathic and allopathic professors, but no provision is made for hydropaths, electropaths, physio-medico-paths, etc., which is very unjust to several large and intelligent classes of practitioners. The bill ought certainly to be passed, as the country is in need of more medical colleges: if there is anything the people of the United States are yearning for, it is just such a school as the bill describes.—*Exchange.*

MULTIPLEX TELEGRAPHY.—Duplex telegraphy, says *Science News*, seemed a remarkable invention when it was first announced, and the quadruplex system a still more extraordinary augmentation of the power of the electric telegraph. Any further increase in the number of messages sent simultaneously on a single wire was hardly to be expected at present; but, if the following extract from the report of a recent meeting of a Franklin Institute at Philadelphia is to be depended upon, quadruplex telegraphy will soon come to be regarded as a "slow-coach" affair:

Professor Edwin J. Houston, being called on by the Secretary to explain the multiplex synchronous system of telegraphy, said: "It gives me pleasure to bring before the Institute what I can not but regard as the most wonderful invention in electricity of the present century. You will the more readily understand the value of this invention when I remark, that hitherto the only system of quadruplex telegraphy in existence was owned and controlled by the Western Union Telegraph Company, and added much to the value of this powerful company, and that this invention, mainly due to Mr. Patrick B. Delany, permits the simultaneous transmission of seventy-two telegraphic messages on one and the same wire." The speaker then briefly explained the system, which consists practically of the synchronous movement of two rotating disks, by means of which the main line is given successively to the different parties connected to it, without interfering in the slightest with the practical continuity of the line to each party. A valuable feature of this invention consists in the fact that the messages transmitted over the line are absolutely private, being unintelligible to any save those for whom they are designed. Too much praise can not be given to the ingenuity of the inventor, Mr. Delany, for this new advance that bids fair to revolutionize the present system of telegraphy.

DECEASE OF ADDISON P. DUTCHER, M. D.—We see by a telegram in one of the morning papers of this city that Dr. A. P. DUTCHER, "author of various standard medical books," died at his home in Cleveland on the night of January 30.

A number of years ago Dr. Dutcher was a very large contributor to medical literature. His writings showed him to be a gentleman of high culture, an accurate observer, and a logical thinker. He attained to quite a prominent position in the profession. A number of years ago he was a frequent contributor to the pages of the MEDICAL NEWS.

TANGOLINE.—This is the title of a new remedy advertised in the MEDICAL NEWS, prepared by A. A. Melier, of St. Louis. There are a number of testimonials in regard to its efficacy printed in the advertisement, and we have seen a number of others from very reputable physicians from different parts of the country. They all seem to represent the conscientious opinions of the subscribers. It is not a secret remedy, and the sale is urged only through the prescriptions of physicians whose endorsement has placed it before the profession.

We could fill a large amount of space in quotations from letters of medical gentlemen extolling the remedy in very high terms, but it is not necessary. If our readers will try it themselves, and we hope they will, they will be convinced of its merits.

THE OHIO SANITARY ASSOCIATION will, at its first meeting in Columbus, February 14 and 15, consider the formation of a State Board of Health. It is very desirable that some such movement should be made. Illinois is a bright example of what a State Board can do, and Missouri is trying to get into good form. Other States are taking action in this matter, and soon most of our best physicians in our best States will be classified. Classification should lead to organization, and organization in our profession means progress.

A BOY'S COMPOSITION ON PINS.—We here give a boy's composition on pins:

"A pin is a very queer sort of thing. It has a round head and a sharp point, and if you stick them into you they hurt, and women use them for cuffs and collars, and men use them when their buttons are off. If you swallow them they will kill you. For five cents you can get a packet of them, and they save thousands of lives."

The teacher said: "What on earth do you mean? How have they saved thousands of lives?" "By people not swallowing them," answered the boy.

FOR SALE.—There has been left with us by a physician a pocket-case of instruments for sale. They are entirely new, never having been used. Cost $20. He will take $14 cash. Any physician needing a case of the kind will get a bargain by purchasing them.

DELAY.—The floods which are upon our city have been disastrous to many. With many it has delayed them much in their business. Our readers will notice that this number of the MEDICAL NEWS is unusually slow in making its appearance.

THE
CINCINNATI MEDICAL NEWS.

VOL. XVII. NO. 194. Old Series. | FEBRUARY, 1884. | VOL. XIII. NO. 2. New Series.

Original Contributions.

Translations from Our Foreign Exchanges.

Translated for MEDICAL NEWS, from the French, by Dr. Illowy, Cincinnati, Ohio.

Continuation of Article on Bilateral Hallucinations.

THIS patient, aged 46 years, entered St. Anne for the first time August 4th, 1879, with an aphasia accompanied by hemiplegia of the right side, which remained stationary for about a month and then very rapidly disappeared. On her second admission, December 5th, 1880, the patient was not aphasic any more, but there was an absolute loss of memory; she could not give either her name, her address, her profession or her civil status. "I do not recollect, she said, whether I am married or not, whether I have relatives or not, but if I have a husband or relatives they will soon come hunting for me." She was hemianesthesic and hemiparetic on the right side. After three months of persistent amnesia her memory returned in several days. July 30th, 1882, she is again brought with aphasia and right hemiplegia. She left at the end of three months, improved but not cured; she was still aphasic and weak on the right side. On the evening of the day of her leaving the institution, she has a a violent altercation with her relatives, and the next morning on rising she finds herself paralyzed, as to sensibility and movement, on the left side; but her speech has become perfectly free; there is not a trace of aphasia.

All these facts lend each other a mutual support to prove the independence of the cerebral hemispheres, but the demonstration is especially brilliant and striking when different hallucinations are provoked on each side, as was done by M.

Dumontpallier, in one of his patients of the Pitie, at one of my lectures at the Asylum of St. Anne. Having placed the patient in a condition of somnambulism, he tells him in his right ear, that the weather is fine and that the sun is shining brightly, whilst another person is telling him in his left ear that it is raining. On the right side the subject smiles, whilst on the left, the drawing down of the labial commissure translates the disagreeableness which the bad weather causes him. Continuing this experiment and calling in the intervention of both sight and hearing, there is described to him in his right ear the tableau of a fête champêtre in which young girls and young men are taking part. This tableau, which is perceived by the left hemisphere, is translated by a smile on the right side of the face, whilst on the left side the face expresses the emotion caused by the imitation of the barking of a dog into his left ear.

This double expression of the face so opposite, is most striking. "It seems to me, says M. Dumontpallier, "that when we can demonstrate at will, by certain procedures, the psychic, sensitive or motor activity of the nervous centres, and this confined to one side or simultaneously on both sides of the body, we have proven in a most absolute and indisputable manner the functional independence of each cerebral hemisphere." (*Union Médicale*, 15 and 19 May, 1883.)

In the bilateral hallucinations of different character, each group is under the evident control of one of the hemispheres; but in which region of the hemisphere shall we localize them?

When Baillarger published his remarkable memoir,* he successfully opposed the exclusively peripheric theory, which places in the organ itself the seat of the hallucination; he equally opposed the psychic or central theory, which made of this symdrome a purely intellectual phenomenon, and he put forth the mixed or psycho-sensorial theory, which seemed to respond to all exigencies. This theory, accepted by the majority of authors, and which seemed to be beyond discussion, is now again called into question since the research on cerebral localization of Fritsch, of Hitzig, of Ferrier, of Munck, and since clinical research supported by pathological anatomy has proven that a lesion of a certain cortical centre gives rise, according to the intensity, to the perturbation or the abolition of a certain function.

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*Baillarger, Des Hallucination, etc. 1845.

Tamburini, basing himself principally on anatomy and experimental physiology, shows with rare critical talent the insufficiency of the psycho-sensorial theory; he places the seat of the hallucinations in the cortical centres where impressions are perceived and he arrives at this conclusion, that *the fundamental cause of hallucination is a state of excitation of the sensorial centres* of the cortex.*

To the numerous arguments, furnished by experimental physiology in favor of this theory, clinical experience adds daily new proofs. Till now, in fact in all cases of psychical blindness or deafness, where the anatomo-pathological could be obtained, every time, I say, the region, which experimental physiology has designated as the sensorial centres of the cortex, has been found altered. In some cases, it is true, the lesion was more extended and passed the limits assigned to that centre; nevertheless, in comparing these facts, and studying carefully the different *schemas* furnished by the authors, we find a common region which corresponds exactly to the sensory center of the cortex.

We can assure ourselves of this by comparing for psychic blindness the cases of Degerine, of Broadbent, and my case, according to which the region of the angular gyrus is the one more particularly affected; for psychic deafness, the facts of Wernicke, of Girandeau, of Fritsch (service of Meyner) and my case, designate the middle portion of the first temporal convolution; lastly, two mixed cases of psychic blindness and deafness of Chauffard and Heilly, and of Chautemepse, in which both these regions (above mentioned) were affected.

In two cases it was a tumor that was the cause of the destruction; the lesion was well circumscribed, was found limited for psychic blindness, (case of Degerine) to the angular gyrus, and for psychic deafness to the middle portion of the first temporal convolution (case of Girandeau). In a recent article of the *Progrés Médicale*, M. Bernard reports a case of sudden and isolated suppression of the mental vision of signs and objects, observed in the service of Prof. Charcot. In his dreams, this patient did not have, as at other times, the visual representation of objects; the visual representation of words only remains to him. "The sense of inward representation is wanting to me entirely," the patient observed. "My dreams have become equally modified ; to-day I only dream words, whilst formerly I possessed, in my dreams, a visual perception."

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*Tamburini, La Theorie des Hallucination. Revue scientifique. 29 Janvier, 1881.

The destruction of the cortical centre, which receives and conserves the visual images, explains completely this new mental condition. When, on the contrary, this cortical centre is excited, the inverse condition is produced, visual images constitute the greater part of the dreams. In the normal condition, in fact, if, during a sleep, a light is brought near the eyes of the sleeper, or if odoriferous substances be spread around him, the visual or olfactory cortical centres, stimulated by these impressions, give rise to images which according to their character produce either a dream or a nightmare. The superior psychical centres are at rest and the automatism alone is concerned in the production of these phenomena. In certain pathological states, in epilepsy for example, analogous phenomena manifest themselves, only that the exciting cause, instead of being an external impression, is a central discharge, which with one blow annihilates the consciousness (anterior region) and stimulates on the contrary the sensory centres of the cortex (posterior region). In these conditions, the patient finds himself transformed into a veritable automaton, acting in an unconscious manner, impelled by the incitations of the region of sensory centres to acts which escape the superior control, at this moment in abeyance.

A few words yet on unilateral hallucinations, which, by their evolution and their general characters, are not different from bilateral hallucinations with which we are just now occupied. If the unilateral hallucinations, manifest themselves at the outset of a chronic delirium, they are of a painful nature ; they are expansive, on the contrary, if they come on at the period of systematization and the ambitious transformation of the delirium ; in one word, they follow the latter in its progressive course.

Furthermore, there is no difference in the seat and genesis, and it is again to the sensory centres of the cortex that we must look.

In an article on unilateral hallucinations (*Encephole,* 1881) Doctor Regis published an observation of a patient affected with unilateral hallucinations of the hearing with purulent otorrhea, who was cured of his hallucinations after the employment of an efficacious treatment of the aural inflammation. This fact proves that an otitis may cause the development of hallucinations in a predisposed individual in a state of morbid receptivity, but that this predisposition, sufficient to enter into action as soon as excited by an external stimulant, remained latent as soon as the physiological equilibrium was restored.

Analogous facts are numerous in mental pathology without that any intimate relation can be traced between the apparent cause and the resulting phenomenon.

If, in an individual so predisposed, a bruise of the cubital nerve becomes for the patient the bite of an animal gnawing his little finger, can we rightly maintain that an irritation of the cubital nerve can produce an hallucination of the touch? Besides, unilateral hallucinations are not rare, and in four cases of unilateral hallucination of the hearing which I had occasion to observe recently, I noticed in one case a hardness of hearing and a facial hemiplegia of the same side, and three times the ears were intact on both sides. Here is a resumé of one of these observations:

A woman, aged 48 years, after a phase of persecution of delirium, during which she pretended she was pursued, that she was being injured, that she was prevented from working, that she was being experimented upon, that she was compelled to imitate the cries of animals, began to present ambitious ideas. She had been embraced by the Holy Spirit and was going to give birth to a son as wise as Christ. That God revealed himself to her, that she was to repeat the rôle of Joan of Arc, and that she was to save France. God speaks to her, but exclusively by the right ear; this is a talisman that reaches to heaven. He has commanded her to go to Paris, and guided by the sun, she has put herself en route. She is to be Governor, she will be President of the Republic.

The hearing is normal and the patient hears equally well on both sides. At the beginning of the malady the hallucinations of hearing were bilateral, her enemies spoke to her on both sides.

In resumé:

1. Bilateral hallucinations of different character on each side are independent of any local alteration of the peripheral organs.

2. They do not differ from other hallucinations either in their mode of apparition, in their evolution, or their general characteristics. They progress parallel with the delirium itself.

3. They are a new proof of the individuality and the

functional independence of the cerebral hemispheres, and they indicate as their organic seat the sensorial centres of the cortex.

4. Experiments in different conditions of hypnotism of hysteria corroborate in all points the results of clinical observation.

The Supposed Connection Between Ear Disease and Kidney Disease.

BY CHARLES H. BURNETT, M. D.

Read before the Philadelphia County Medical Society, December 19, 1883.
Reported for the CINCINNATI MEDICAL NEWS.

EARLY writers on disease have shown a knowledge of the fact that alterations in hearing occur in the course of general diseases, as for example, in diseases of the kidneys. It was supposed by them that the alteration in the functions of the ear, in this form of disease, was due to changes in the auditory nerve. But the results of the more reliable modern investigations tend to show that if an ear disease be due to a kidney disease, the lesion usually occurs in the tympanic cavity and not in the auditory nerve.

Certainly accidents of a hemorrhagic or apoplectiform nature might be expected either in the tympanic cavity or internal ear, in Bright's disease, when we reflect upon the deterioration of the blood, and upon the malnutrition and friability of the vascular system, in the later stages of the malady. Further, as Bright's disease is characterized by a tendency to inflammation, especially in serous membranes, and as the membranous structures of the internal ear, or labyrinth belong to this class, of membranes, very naturally organic change in these tissues might be looked for in Bright's disease of the kidneys.

However, as late 1856, Rau, in his "Ohrenheilkunde," published in Berlin in that year, claimed that there was not a solitary reliable observation at that time on record, in favor of any symptomatic relation between the ear and the urinary organs.

In 1869, Schwartze* reported a case of extravasation of blood into the tympanum, as peculiar to Bright's disease, though of rare occurrence, and in the same year, Dr. G. M. Smith, of New York,[*] "called attention to the fact that impairment of hearing was at times one of the symptoms of Bright's disease, and a symptom which could not be explained by referring it to uremia."

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*Archiv. f. Ohrenheilkunde, Bd. iv, p. 12.

In 1873, Dr. Roosa, of New York, in his treatise on the ear, refers to an obstinate case of suppuration and pain in the middle ear in a man 61 years old, suffering from Bright's disease. In this case, it was supposed that the effect of the renal disease upon the tympanic vessels, was the cause of the acute suppuration, and it was also supposed that the disease in the drum cavity was originally hemorrhagic in nature. The subject was deemed of enough importance to place a physician on his guard for renal disease in cases of hemorrhage into the tympanic cavity.

It must not be forgotten, however, that there is a purely sthenic form, otitis media hemorrhagica, occurring in subjects entirely free from kidney disease, in which the only effusion is pure blood, the removal of which from the tympanum by paracentesis, is followed by cessation of pain and return of hearing.[†]

Again, in 1878, Schwartze[‡] states that the serous catarrh of the tympanic cavity, is found in syphilis, heart disease, pneumonia, Bright's disease, naso-pharyngeal catarrh, and apparently may be due sometimes to vaso-motor disturbances. The same author says, hemorrhages into the labyrinthine cavity and the membranous labyrinth occur in kidney diseases.

Also, that extravasations of blood into the tympanum (hæmato-tympanum) occur spontaneously with acute inflammation in morbus Brightii, cynanche diphtheritica and in endocarditis verrucosa recens et ulcerosa (op. cit., p. 94).

Dr. Paul Pissot,[||] in an inaugural thesis, is disposed to consider three forms of aural disease, which may arise in Bright's disease, viz.: tinnitus aurium, partial deafness and complete deafness. His conclusions are, that affections of the hearing may arise at the beginning or during the course of the renal disease. Intermittence seems to be characteristic of these forms of deafness, which may be contemporaneous with the œdema, or may precede it. They appear with all forms of the disease, and are manifested with variable intensity. But he can not say to what special lesion of the ear, or of the nerve of hearing, their symptoms are attributable. Delacharrière, a responsible aurist, examined the cases upon the history of which the thesis is based, and found rupture of the membrana tympani, abnormal vascularity of the manubrium, and sclerosis of the tympanum, and was disposed to regard the conditions as causative forces. Pissot held that the hypothesis of Rosenstein, according to which there is œdema in the course of the auditory nerve within the cranium, may explain the intermittence and variations of intensity in these morbid manifestations. This latter process may be analogous to the œdema of the glottis and vocal cords noted in Bright's disease, by Fauvel, in 1864. A similar symptom has been noted by Sée.

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[*] N. Y. Acad. of Med. See Roosa's Treatise, 1873, p. 257.

[†] Roosa, Transactions Amer. Otol. Socy., 1872, and O. D. Pomeroy, Ibid., 1875.

[‡] Pathological Anatomy of the Ear. J. O. Green's Translation, pp. 97 and 157.

[||] These pour le Doctorat en Medicine. Faculte de Med. de Paris, April 4, 1878.

In alluding to chronic, non-suppurative aural catarrh in children, Von Troeltsch* says: "A greater blood pressure from increased action of the heart, as in Bright's disease, must necessarily produce a certain hyperæmia, even in the mucous membranes of the head."

Albert H. Buck,† of New York, expresses the opinion that in some instances a serous fluid, deeply tinged with the coloring matter of the blood, finds its way into the tympanic cavity through other than inflammatory causes. "Instances of the latter form of disease are very rarely met with, and then usually in connection with a depraved state of the general nutrition, as in morbus Brightii."

Dr. Maurice Raynaud‡ expresses the opinion that diabetic otitis is not only more frequent than is supposed, but that when this has once become a well-known fact, it may prove a pathognomic index, like anthrax, diffuse phlegmon, and certain erythematous eruptions about the genitals, and arouse suspicion of the presence of the renal disease thitherto unsuspected. He cites a case of well-marked diabetes mellitus, in which there suddenly occurred, one evening, a severe earache, after the patient had been in the hospital two weeks, and most carefully watched, so that no chilling

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* Diseases of the Ear, in Children. J. O. Green's Translation, 1882, p. 67.

† Diagnosis and Treatment of Diseases of the Ear, N. Y., 1880, p. 264.

‡ Clinical lecture at La Charite, Paris. Annales des Maladies de l'Oreille, etc., Mar. 1881.

could have been the cause of the ear pain. The pain became intense, and towards midnight of the same evening in which the pain set in, there occurred an abundant hemorrhage from the drum-cavity of the affected ear, which was followed by immediate relief. This was followed for several days by a copious sero-sanguinolent, and then serous discharge, which contained leucocytes and albumen, as shown by heat, but no sugar. Post-mortem examination, twenty-three days after the attack of otitis, revealed a large perforation in the anterior segment of the membrana tympani, red, fungous and bleeding mucous membrane in the drum cavity, in which there was a pink, purulent liquid. The ossicles were not dislocated, but were embedded in granulations, and near the stirrup was a clot of blood. The mastoid cavity was filled with a rose-colored liquid, containing pus-cells, and its bone substance was greatly injected and marbled, presenting all the appearances of inflammation of bone tissue. The labyrinth showed no alterations. The author concludes that ostitis in the petrous bone is a peculiar and constant symptom of diabetic otitis.

P. McBride,* in an article devoted to the consideration of the various causes leading to aural disease, states that "occasionally the ear is affected in Bright's disease by hemorrhage into the tympanic cavity. The tympanum becomes filled with blood, which probably either becomes absorbed or leads to suppuration. Schwartze was perhaps the first to observe this condition." McBride further says: "I am not aware that sudden labyrinthine deafness in the course of Bright's disease has been described, but it seems probable that such a contingency might be looked for here and also in pernicious anæmia in which retinitis hemorrhagica is not uncommon."

In the recently published work of Prof. Politzer,† on the ear, the author's experience is that in cases in which a supposed connection existed between the organic renal disease and an aural malady, the fundamental cause lay in very apparent changes in the middle ear. He has also found that "catarrhs of the ear run an unfavorable course in tuberculosis, Bright's disease, and all cachexiæ by which the nutrition of the general system has become deteriorated."

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*Edin. Med. Journal, February and March, 1882.

†Cassell's English Translation, 1883, Phila.

CONCLUSIONS.

1. Evidences in favor of either frequent or well-marked aural lesions, dependent upon renal diseases, are extremely meagre.

2. Those lesions in the ear, which have been found in connection with Bright's disease and diabetes mellitus, and which may have been dependent upon the dyscrasia induced by these renal disorders, are in the form of sero-sanguinolent and hemorrhagic effusions into the drum cavity. But the latter must not be mistaken for the sthenic form of otitis media hemorrhagica.

3. From the serous nature of the membranous structures of the labyrinth, organic changes might reasonably be expected in Bright's disease, but positive proof of the occurrence of such lesions based on ante- and post-mortem history is wanting.

Nitroglycerine and the Chloride of Gold and Sodium in the Treatment of Albuminuria.

BY ROBERTS BARTHOLOW, M. D., LL. D.

Read before the Philadelphia County Medical Society, December 19, 1883.
Reported for the CINCINNATI MEDICAL NEWS.

HITHERTO the therapeutics of renal diseases have not advanced in the same ratio as our knowledge of their pathology. It can not be said now that a cure has been found, but that two remedies of real value are available. My contribution to this symposium, on albuminuria, consists in an attempt to define the place which these remedies should occupy in a curative scheme. To do this, in even the briefest way, I must clear the ground with a preliminary statement.

I start with the proposition that those renal lesions united by the common symptom—albuminuria—are of neural origin. There is a kinship between diabetes and Bright's disease. One of these is sometimes substituted for the other; and during the course of some rare cases of exophthalmic goitre this substitution occurs. Irritation of a certain part of the floor of the fourth ventricle is followed by glycosuria; of another part by albuminuria. The recent observations, of Da Costa and Longstreth prove that a relation exists, whether casual or sequential, between certain renal lesions and degenerative changes in some ganglia of the abdominal sympathetic. The hypertrophy of the muscular coat of the arterioles, discovered by Dr. George Johnson, and the increased tension of the vascular system due to an irritation of the vaso-motor centre in the medulla, both present in the chronic forms of albuminuria, are further evidences of the agency of the nervous system. It was, more especially, the condition of elevated tension of the vessels which led to the use of nitroglycerine. This remedy before all else reduces the vascular tension. It also lessens the work of the heart by removing the inhibition exercised by the pneumogastric nerve.

This remedy appears to have been first used by Mr. Robson, an English surgeon, in cases of albuminuria, and by him employed, because the high tension of the vascular system has proved to be so pronounced an element in the more chronic cases. I have, myself, seen some remarkable instances of relief—indeed of cure—effected by it. If time were now available, I could give some striking examples. In cases of mitral disease accompanied by albuminuria, it also renders the highest service—for the diminished peripheral tension lessens the work to be done by the heart, and assists in the more equal distribution of the blood. The effect of this in relieving the renal congestion is obvious.

Chloride of gold and sodium has quite another function. It has long been known that this remedy has a special direction to the genito-urinary apparatus. The ovarian and uterine organs in the female, the testes and vesiculæ seminales in the male, are stimulated by it, and the kidneys, by means of which it is eliminated, and in which it tends to accumulate, are decidedly affected by it in function and structure. In common with some other agents of the class to which gold belongs—for example, corrosive sublimate—the chloride acts on connective tissue and checks its over-production, or its hyperplasia. It would be quite impossible in this note to go over the evidence on these points, and hence I must ask your assent to these statements. They have been accepted as true of gold, from the days of the alchemists and iatrochemists, as any one may ascertain from that curious collection of mediæval medical learning—the Anatomy of Melancholy. It has happened, strangely enough, that Hahnemann and his followers have profited by this knowledge, and have used gold preparations—especially *æurum potabile*—in the treatment of renal diseases with success.

How and when are these remedies to be used?

Nitroglycerine is now administered, as all present know, in the form of the centesimal solution—1 minim of the pure drug to 100 minims of alcohol. The initial dose of this one per cent. solution is one minim, which should be increased until the very characteristic physiological effects are produced. The susceptibility to the action of nitroglycerine varies greatly, and hence the dose can not be stated in advance. It is necessary to produce some obvious effect. To maintain the same level of action, a slight increase in the dose may be required from time to time. As the effect is not lasting, the interval between the doses should not exceed three or four hours.

The administration of nitroglycerine should begin in acute cases immediately after the subsidence of the acute symptoms. It is indicated in chronic cases at all periods, but is more especially useful, if given before hypertrophy of the muscular layer of the arterioles has taken place. When it acts favorably, the amount of albumen in the urine steadily diminishes. The mechanism of its action consists in the lowering of pressure in the renal vessels. How far any curative effect proceeds from action of this remedy on the sympathetic system, remains to be determined.

Chloride of gold and sodium is indicated in the subacute and chronic cases, especially the latter. The earlier it is given the better, if structural changes are to be prevented or arrested. The good effects. to be expected from it will depend necessarily on the extent of the damage already inflicted on the kidneys.

The usual dose is $\frac{1}{20}$ grain, twice a day, but this may be much increased, if necessary. At the outset, $\frac{1}{10}$ grain may be given; in a week the dose should be lowered to $\frac{1}{15}$ grain, and after a month the regular dose of $\frac{1}{20}$ grain should be steadily pursued, with occasional intermissions. Indigestion, gastralgia and colic pains, nausea or diarrhœa, are occasionally caused by it; and if so, the quantity administered must be reduced. It is usually borne without any discomfort, but after prolonged administration, salivation, weakness, emaciation, trembling and other nervous phenomena may occur possibly. Such effects, however, are wanting in my experience.

The treatment of albuminuria by nitroglycerine and the chloride of gold and sodium, does not necessitate the exclusion of other means—hygienic, climatic or dietetic. These remedies should, however, be given uncombined at different hours, and their actions should not be hindered or obscured by the effects of other agents given with like purpose. To this general statement there may be two exceptions: with nitroglycerine, amyl nitrite or sodium nitrite may be given; with the gold and sodium chloride, corrosive sublimate may be combined. If doubts may be felt in regard to the propriety of depending on the utility of these remedies, they need not be long experienced, for if no good effects are observed in two weeks, they may then be discontinued.

Note on Some Recently Suggested Delicate Tests for Albumen.

BY JAMES TYSON, M. D.

Read before the Philadelphia County Medical Society, December 19, 1883.

MOST of the members of the Society are probably aware that recently several delicate tests for albumen have been suggested by different observers. Among them are:—1. A saturated solution of picric acid, by Dr. George Johnson; 2. Saturated solution of ferro-cyanide of pottassium after free acidulation by citric acid, suggested by Dr. Pavey; 3. Standard solution of potassio-mercuric iodide, suggested by Tauret,* after acidifying the urine by citric acid; 4. Equal parts of a saturated solution of sodium tungstate (1 in 4), saturated solution of citric acid (10 in 6), and of water; 5. Acidified solution of potassio-mercuric iodo-cyanide. The last two were suggested by Dr. George Oliver in the *Lancet*, Feb. 3, 1883. To complete our list of available tests, we may add:—6. The ordinary heat and acid test; 7. The nitric acid test, by Heller's overlaying method; and 8. The acidulated brine, suggested by Dr. Roberts of Manchester, England, and consisting of an ounce of hydrochloric acid added to a pint of water, saturated with common salt, and filtered.

The whole subject of these delicate tests has been gone over by Dr. George Oliver, of London, who has published the result of his labors at various times in the London *Lancet*, early in 1883, and more recently in a little volume of fifty-four pages, published by Lewis, of London.

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*Mercuric Chloride, 2·7 grains; Potassium Iodide, 6·4 grains; Distilled Water, 100 c. c.

As all of the tests which are not distinctly acid require the previous acidulation of the urine, Dr. Oliver has modified the picric acid solution by adding two drachms of citric acid to one ounce of the solution.

Leaving out the potassio-mercuric iodo-cyanide as a solution troublesome of preparation, Dr. Oliver's results as to all the other tests just named are as follows :

Adopting Heller's method of overlaying the test solution by the urine (all of them as above prepared are specifically heavier than ordinary urines, while the pure picric acid solution is lighter), ONE PART OF ALBUMEN may be detected in

PARTS OF URINE.		TESTS.
20,000	by the	Iodo-Mercuric, Picric, Tungstate.
10,000 12,000	by the	Ferro-cyanide, Acidulated brine.
6,000 to 7,000	by the	Heat, Nitric acid.

I have carefully repeated Dr. Oliver's testings, and have arrived at results which, while not identical, may be said to be practically the same—except, perhaps, in the case of heat and ice combined, which, used in the manner directed in my book on the "On the Examination of Urine," I find decidedly more delicate than the pure nitric acid, and more delicate than the acidulated brine solution. So, also, I do not find the sodium tungstate solution quite as delicate as the picric acid and the potassio-mercuric iodide ; but they may be placed in the same category. As the result of this experience, it appears to me that the use of nitric acid may be altogether substituted by the acidulated brine, as a solution at once more delicate and, on account of its non-corrosive properties, altogether more satisfactory to manipulate.

In the *Medical News* for October 28, 1883, Drs. Charles A. Cooke and Ralph B. Watkins, resident physicians in the Bay View Hospital, Baltimore, published a paper on the "Value of Picric Acid as a Test for Albumen," in which they prove that the urine of persons taking six grains of sulphate of quinia or sulphate of cinchonidia daily will invariably give a precipitate with picric acid, nine or ten hours after the administration. Also, that solutions of sulphate of quinia and of cinchonidia containing $\frac{1}{120}$ grain gave a decided precipitate, and one containing $\frac{1}{180}$ of a grain an appreciable precipitate.

With a view to testing these results, I tested my own urine on a given day with picric acid, and found no response. On the following day I took 22 grains of sulphate of quinia in three doses, taking the last dose at 6:30 P. M. The urine passed at 8:30 P. M. gave a beautifully distinct white line, when overlaid by a pure picric acid solution. So also did the urine passed at 9 A. M. the next day; but that passed at 3 P. M. did not respond. I also found that a solution of sulphate of quinia containing $\frac{1}{100}$ of a grain to the fluid-ounce responded similarly.

I then repeated the experiments with the remaining tests, and found that the potassio-mercuric iodide gave identical results with the picric acid solution, *but that the sodium tungstate and ferro-cyanide of potassium solutions did not.* So that we shall have in these two test solutions, and particularly in the sodium tungstate, a test solution more delicate than heat, acid or brine, which is not open to the objection of precipitating quinine in solution.

Picric acid has also been shown by Dr. George Johnson to precipitate artificially prepared peptones. And the same is true of potassio-mercuric iodide and sodium tungstate; and as peptones have been shown to be present in a considerable number of urines, they must be admitted as possible sources of error, the exact importance of which is as yet to be determined. The ferro-cyanide solution does not precipitate peptones, but, in common with the others, occasionally precipitates amorphous urates. But these, behaving precisely like the amorphous urates thrown down in the Heller test by nitric acid—that is, they form a smoky cloud rather than a distinct layer, and are easily dissipated by a moderate heat—need not be a source of error. An excess of albuminous urine dissolves the precipitate formed by pyric, but this need not be a source of error. It is said, too, that potassium salts are precipitated. But, as far as we know, no other agencies likely to be found in urine can lead to error; so that, if we remember to eliminate quinine as a source of error, the picric acid solution, acidulated with citric acid, is still an available test of great delicacy, which is further recommended by its cheapness and easy preparation; although, so far as our present knowledge goes, the sodium tungstate solution is the best, and least liable to cause error.

DISCUSSION ON ALBUMEN TESTS.

Dr. Dulles:—The error caused by the precipitation of quinine by picric acid may be corrected by adding nitric acid, which dissolves the quinine precipitate, but not that of albumen. Early in this year, my attention having been attracted to the articles of Dr. Oliver, of Harrowgate, England, in regard to his "test-papers," I wrote to him, asking for some information about them. In reply, Dr. Oliver has been kind enough to send me a set of these papers, with the request that I would report the result of my experience with them. As soon as they came to hand, I instituted some tests to see whether they could be safely trusted to take the place of the old-fashioned boiling and nitric acid tests for albumen. The result of my investigations was to lead me to conclude that they could not. This opinion rests upon the fact that I found the test-papers to react, and indicate the presence of albumen after I had removed all that was possible, by careful and thorough acidulating, boiling and filtering. I found that albuminous urine thus treated, and no longer giving a reaction to nitric acid or renewed boiling, did react in the presence of certain of Dr. Oliver's papers, though not of all. Some months later I communicated this objection to Dr. Oliver, who replied with a statement that the process relied on to get rid of albumen was not to be depended upon, and gave his own observations, as follows:

"(*a*). Urines which afforded no precipitation with the test-papers were charged with ov-orserum-albumen, and were then boiled carefully, acidulated by acetic acid, and filtered through two thicknesses of Swedish filter-paper. The perfectly clear filtrate afforded a cloud (as when a small quantity of albumen is present) by the test-papers. Re-boiling, however, produced no further opacity, and strong nitric acid afforded negative evidence. (*b*). Pure serum-albumen was dissolved in distilled water. After boiling, etc., as above, the clear filtrate, in which nitric acid gave no proof of the presence of albumen, produced a cloud by the test-papers, though the latter, of course, afforded no such deposit in distilled water only. (*c*). Albuminous urine treated in the same way gave precisely the same results." Dr. Oliver concluded that "a very small quantity of albumen can remain in solution, even though the albuminous liquid is subjected to thorough boiling; and though this trace of albumen can not be discovered by strong nitric acid or by re-boiling, it can be brought to light by the other tests." It would certainly appear from Dr. Oliver's experiments that, in this conclusion, he is right; but there is still an objection to these test-papers, founded upon what is claimed to be their chief merit, namely, their delicacy. I am afraid that a test which may disclose the presence of very minute quantities of albumen in the urine may increase the number of alarmists and of the alarmed about "Bright's disease." If this objection can be obviated by the diffusion of common-sense views in regard to the true significance of occasional small proportions of albumen in the urine, I think much might be gained by employing this ingenious and handy way of testing, proposed by Dr. Oliver. (The package of test-papers was passed around for inspection among the members of the Society.)

Dr. John Aulde:—Having given this subject some study and investigation recently, I may be able to add something to what has already been said by the gentlemen who have preceded me. That a saturated solution of picric acid is a delicate test for albumen in the urine, none will question; but there is an objection to it, and the same may be said in regard to nitric acid, namely, that it stains the hands and clothing of the operator. The points in its favor are, that a solution can easily be prepared, and it is safe to handle; but there are chances of error, and unless these are first eliminated, the physician may be misled by this method of examination alone.

If a quantity of albuminous urine is placed in a test-tube, and a single drop of the solution allowed to fall upon it, a distinct coagulum will be formed; but when there is an excess of albumen, agitation of the mixture will cause it to be readily dissolved. If there are peptones in the urine, the addition of picric acid will be followed by a precipitate; and, contrary to the opinion of Dr. Tyson, Gerhardt has frequently observed peptones in urine free of albumen, either as a forerunner or consequence of ordinary albuminuria, while Senator states that peptones exist in every albuminous urine in slight quantities. Another source of error arises from the use of quinine, a substance excreted largely by the kidney, and it has been stated that a weak solution of the alkaloid, when brought in contact with picric acid, will show the characteristic reaction, but there are other alkaloids which will act in a similar manner, although I am not able at present to name them. The presence of urates will likewise throw down a coagulum with this solution, but not until after some minutes; but it should be stated that there is a material difference between this and the coagulum formed by albumen. In the case of urates it is crystalline, while that of albumen is granular.

We may conclude, therefore, that the picric acid test is an extremely delicate one, but that it is not decisive, and may be used with advantage only as a method corroborating other tests, and then only after the chances of error have been eliminated.

It will not be out of place here to call attention to the possibility of laying too much stress on the single fact that there is albumen in the urine, as it has been shown that it does exist in normal urine. The recent work of Dr. Millard, entitled "Bright's Disease," is authority for the statement that in a series of examinations, conducted by French surgeons, the urine of soldiers supposed to be in good health and free from hereditary taint, discovered the presence of albumen in no less than eighteen cases out of one hundred.

Dr. Leffmann:—Undoubtedly, the more delicate a test is, the greater its scientific value. While it is true that undue fear may be excited by detecting very small amounts of albumen in urine, yet, on the one hand, if albumen is ever an ingredient of normal urine, it is only by these delicate tests that this fact can be established; and, on the other hand, if it is always pathological, the recognition of its earliest appearance will be of much clinical value. In my own experience I have found the glacial phosphoric acid the most delicate and easily applied test.

Dr. Tyson:—The questions which suggested themselves to Dr. Dulles, have, of course, suggested themselves to me. In speaking of picric acid, I took it simply as a type of a group, and I found that all the urines that gave the reaction with it were from cases showing symptoms of kidney or genito-urinary irritations, such as gravel, mild forms of cystitis and the like. I agree with Dr. Dulles as to the unnecessary public alarm in reference to Bright's disease, but I still think that in these delicate tests we have an important addition to our means of early diagnosis. I recall the case of a gentleman subject to gout who consulted me last spring, because a case of albumen and a few casts had been found in his urine, which was also of low specific gravity, during an attack of gout. My examination was made after the attack had subsided, and I found neither albumen nor casts. Six months later I re-examined the urine and found a trace of albumen by the ordinary heat and acid test, and also a few hyaline casts. The patient was put upon litheated potash, and in two weeks I examined another specimen. This time I again found no albumen by the heat and acid test, but a distinct white line was revealed in overlaying the urine with a pure picric acid solution and underlaying with the sodium tungstate. I think it may be fairly concluded from such results as these, that if the more delicate tests had been used in the first instance, I would then have detected the albumen. Again, I do not believe in the existence of a *normal* albuminuria. It is pretty certain that we often find small albuminurias which are of no significance. Such an albuminuria may be harmless and of no significance, but it is still not a normal albuminuria. I am aware that peptones occur in urine, and that these are precipitated by picric acid, and I referred to this fact in my note ; but this fact need not necessarily interfere with the utility of these delicate tests after they have been thoroughly studied. The whole matter is now *sub judice.*

I have used Dr. Oliver's papers and find them delicate. I have myself never placed a very high estimate upon bedside testing, preferring to use the solutions at home. They certainly are a great improvement over all previous measures suggested for bedside testing.

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A Case of Twins, Super-Foetation, with Hour-Glass Contraction.

BY J. W. SPICER, ACTON, INDIANA.

Mrs. S., 44 years of age, a small-sized, spare-built woman weighing in her non-pregnant state about ninety-five pounds, mother of 11 children. I was called to attend her in her twelfth labor on the night of January 3d, 1884, at 10 P. M. When examination was made the os uteri was fully dilated, with the bag of waters protruding through it into the vagina. I could not make out the fetal presentation through the waters, and as they had accomplished their full purpose in dilating the os, and as the pains were regular and efficient, I at once ruptured them, with a large flow of amniotic fluid following. On examination now I found the vertex presenting in the first position. The labor progressed nicely, and at 11 P. M. the first child was born, at full term, and alive. After tying-the umbilical cord, I noticed that the uterine tumor had but slightly diminished, and as the pains were still quite active and persistent, I passed the finger into the vagina, and also up into the uterine cavity, but came in contact with no presenting part. I introduced the hand into the uterus, and found a well marked case of hour-glass contraction of that organ, with the second child, and both placentas in the upper chamber. The contraction at first only admitted the first two fingers of the right hand, but by a long and persistent effort the hand was forced through and the stricture overcome. The hand now coming in contact with the abdomen of the child, it being a transverse presentation, the head to the right while the feet occupied the opposite point, the hand was gently glided along the anterior surface of the child until the feet were reached, which being seized and brought down, converted the presentation into the first position of the feet. The uterus continued to contract vigorously, and by slight traction upon the feet, the child was brought through the contraction and into the world, dead, at 2. A. M., at about the seventh month of utero-gestation. The cord was then tied, and the dead child removed from its mother. The hand introduced and both placentas scooped out with but very little hemorrhage following. The mother was placed comfortably in bed, bandaged, and allowed to rest. Uterus contracted firmly; both mother and child doing well.

Selections.

St. Louis Medical Society.

Reported for the St. Louis Medical and Surgical Society by a Stenographer.

MELANO-SARCOMA OF THE ORBIT.

Dr. Pollak had a patient present, whom he desired to exhibit to the Society. He asked that the patient should be inspected and examined, before the history of the case was given. During a recess of five minutes, he was seen by all members present. Dr. P. then stated, that the patient is aged 51, a farmer in Iowa. The left eye was closed, the lids somowhat œdematous and ecchymotic. On separating the lids, a bulbous immovable body was seen, having a round black spot in the centre, seemingly a pupil ; the surroundings had the appearance of a sclerotic, lined with a conjunctiva, with numerous symblepharons on the lower lid. The conjunctiva was perfectly dry, xerotic, of a dirty, greyish-white color. The Meibomian fluid was also wanting, as well as the lachrymal secretion. The puncta were everted.

It was quite natural, that on only brief examination, this was taken for some pathological condition of the eye. But there was no eyeball present, it having been enucleated by Dr. P. *ten years ago*, on account of an *intra-ocular tumor*, a *Glio-Sarcoma* of the Retina and Choroid. Enucleation of the eye was suggested as an imperative necessity to palliate pain, and perhaps to prolong life a little, but with no expectation of cure ; for the disease would certainly recur sooner or later. The subsequent pathological and microscopic examination corroborated the diagnosis. The sarcoma emated from the sheath of the optic nerve, which was drawn out, and divided as far back as possible. As usual after enucleation of the eyeball, the conjunctiva fell back, and the cut edges united by first intention. The vacant orbital cavity had the appearance of an inverted cone, and was perfectly smooth.

The patient returned after *six years*, with a small sarcomatous growth, which sprang apparently from the centre of the cicatrix of the conjunctiva, and filled about one-fifth of the orbital cavity. This was also quickly removed, including a portion of the conjunctiva, to which it seemed attached.

Four years have since elapsed, and he presents himself again, with a typical MELANO-SARCOMA, filling the entire orbital cavity, and overlapping the lower orbital margin, but not protruding between the lids. It is held in by the conjunctiva, which is being pushed forward by the advancing tumor, and making the centre of it sufficiently convex to give the appearance of the ocular bulb. The most attenuated part of the conjunctiva being in the centre, allows the dark melanotic tumor to be seen through, and thus simulates a somewhat displaced and jagged pupil.

The tumor is soft, painless to the touch, although paroxisms of pain do occur, and last sometimes hours and days. The person is not ignorant of the grave character of the case, and of the inevitable denouement ; yet he is desirous of treatment. The first respite of *six years*, and another of *four years*, makes him hope that he may yet get another lease on life.

The tumor is now immeasurably larger than ever before, probably involving all the tissues in the orbital cavity. The patient, though apparently vigorous, suffers likewise from a very great hypertrophy of the liver, with several large nodules in the right hypochondrium, which shows an involvement of remoter organs, with probably the same malady.

The most interesting feature of the case is the very exceptional slowness of the recurrence of the disease. Usually as many *months*, as it took *years*, sufficed to reproduce the tumor, which almost always resulted fatally. In my own practice I know of only one case—so often referred to in this Society—where the tumor had not returned, though 13 years have passed since the eye was enucleated for an intra-ocular glio-sarcoma, of which pathological and microscopical preparations are yet preserved.

Dr. Williams.—I would like to ask the doctor what his diagnosis of this case would have been if he had never seen it before?

Dr. Pollak.—I never would have been more deceived. That is the very reason I wanted the members to see the patient before I related the history of the case. The gentlemen at the clinic made a mistake. I didn't recognize the patient, and when I opened the eye, I thought I was dealing with a diseased eye. When he mentioned his name I recollected the case, and knew, of course, that there was no eye there. This is the plainest kind of a sarcomatous tumor. You will see it fills the whole orbit, and projects over the margin above and below. It is decidedly sarcomatous.

Dr. Lutz read a paper, entitled "Excision of the Rectum for the cure of malignant growths."

Dr. Lutz.—I just want to remark, in connection with this case, that Dr. Pollak has reported, which is supplementary to my paper, that I believe it is the recognized practice in all cases of malignant growth to remove them whenever it can be done consistently with life. I think that is accepted as a general rule. No one, who has a proper regard for his office as surgeon, would perform an operation upon a patient for the mere sake of performing the operation. There must always be some object to be gained. Now not only is it a rule that we should remove all neoplasms, that can be removed consistently with the life of the patient, but it is a rule to remove them as often as they recur. Now, whilst Dr. Pollak has been exceptionally fortunate in removing this growth, and having it remain away so long, it seems that when a neoplasm returns after the first operation, and is a second time removed, that it does not stay away so long. This is illustrated by Dr. Pollak's case, where the tumor stayed away six years after the first removal, was again removed, and now after four years another growth appears, which Dr. Engelmann considers a melano sarcoma. I would suggest that it would be a proper procedure to clean out the orbit, and remove everything that is within reach. I think that in this way the patient will be given the best opportunity to pass what time may remain for him in comparative comfort. Now, in a good many operations for cancer, the considerations of the extent of the disease are such as to determine our course. I have read a good deal of the literature of surgery in connection with this subject, and I have very often read glowing accounts of surgical operations involving a great deal of tissue which had been removed, and I have gotten so I always look at the end of the article to see what the autopsy says. I believe it is bad surgery to remove a portion of an organ, unless we have a probability of doing the patient good—I mean that we should discountenance operations which are done merely for the sake of operating.

CANCER OF THE FOOT.

Dr. Edward Borck.—I have here another of those beautiful specimens, such as I presented on last Saturday evening. This is the left foot of Mrs. A. V., an American lady aged 18 years and 6 months; she is married, and has had one child, which is about twelve months old. This is the history of the case. She says that she has complained of a weakness in this ankle, more or less, since she was 2 or 3 years old. I should have stated that this case came under my observation about the middle of last February. For the last 2 or 3 years she has had excruciating pain in the foot. She was treated in various ways, by liniments, bandages, and all sorts of internal and external remedies. The growth became very large and the ankle swelled up, so that she couldn't walk at all. A surgeon then saw the case and made an incision. I don't know whether the incision was made for the purpose of letting out pus, or as an exploratory incision; but after that the growth developed very rapidly. When the case came under my care, I diagnosed it as a cancer, and advised an amputation, which, of course, was performed.

In connection with this case, I would say that when cancer does return, it does not always return in the same organ.

But in the female it is strange that it often occurs in the uterus. We often find, after a time, offensive discharges from the vagina, and discover that we have cancer of the uterus. So in this case, this patient has cancer of the uterus, which showed itself 6 months after the operation for the amputation of the foot.

Dr. Dean.—In regard to the case Dr. Pollak has presented, I think it would perhaps mislead any one who saw it for the first time; it seems that the doctor was misled himself when he first saw the patient. We had a case at the hospital a few years ago, which was operated upon by Dr. Pope, and I believe Dr. Engelmann afterwards operated upon it. The eyeball was enucleated. It was a case of sarcoma, and was half as large again as my fist. At the time we saw him it extended back through the orbit, clear back to the brain.

In regard to cancer of the rectum, I think the trouble with most of these cases is that when we see them they are often too far gone to be operated upon successfully. I agree with Dr. Lutz in regard to the propriety of operating upon these tumors. There is no sense in operating, unless we feel sure we can prolong life thereby. I think that, unless we have good reason to believe we can so prolong life, a much better plan is to perform colotomy, to open the colon on the left side; in this way the life of the patient may not only be frequently prolonged, but the patient may feel much easier, and the growth be less rapid in its increase, because in the rectum there is not so much irritation. I think it is better to make an artificial anus through the colon. In one case that we had at the hospital I wished to operate, but the patient wouldn't consent.. The rule is, I believe, at least a very good rule is not to operate unless we can reach above the tumor with the index finger, so as to reach sound tissue. I think that if we go beyond that we are liable to wound the peritoneum, which, however, does not seem to be so important a thing now as it was once considered, provided the operation is carried on as fully as may be, under antiseptic precautions. It may seem to some that antiseptic precautions can be conducted with little success in such cases, but it certainly will effect a great deal, especially when such permanent antiseptics as iodoform are used, which will not wash away as soon as the ordinary antiseptics, such as carbolic acid. I think the best operation for resection, when the integument is intact, is that of Hebra (?): to remove a horse-shoe flap, commencing from the scroto-perineal region and turning it down completely; then removing the gut for the proper distance and putting the stitches through, as suggested by Dr. Lutz, then bringing down and stitching the flap to the integuments.

Dr. Engelmann.—It seems strange to me that I have not seen anything in ophthalmology for so many years and am now brought in contact with a rare case, such as one I devoted a great deal of time to some twelve years ago. It is unquestionably a case of melano-sarcoma, with probably beginning carcinomatous changes. I was assistant to an eye clinic once, and did most of the pathological work. One of the specimens, which I examined with great care in all its portions, as a unique specimen, was one, it strikes me, which is identical with this. It was a second excision, and was a sarcomatous structure, in part melanotic, quite as much so as this evidently is, and a beginning carcinomatous structure. As the growth increased, the melanosis increased, and the sarcomatous structure seemed to yield to the carcinomatous. It looks very much as if that were the case here. I presume the first growth was quite light; not so melanotic.

Dr. Pollak.— No, it was dark.

Dr. Engelmann.—Then it was melanotic from its incipiency. But the growth, that I have reference to, underwent malignant changes, and became in its development more melanotic; but certainly the character of this was malignant from the beginning, and that unquestionably will be its termination; and I believe with Dr. Lutz, that the best chance, and the only chance which we have in all these growths, is its complete removal, and the complete removal of the tissues with which it is in contact. It is certainly the principle, which we follow in all other growths, and as we have seen in the most interesting specimen which has been presented here to-night. It is precisely the same rule, which we follow in the removal of cancerous material in the uterus. If we can remove such changed tissue, we should do it; if we can possibly remove the organ *in toto*, it should be done. I have, as yet, never found a case of cancer of the uterus sufficiently limited to admit of a removal of the organ *in toto*. If we can remove only a part by a simple operation, it will suffice to remove all that can be removed through the vagina. We can remove what we suppose to be the diseased tissue. I presume Dr. Lutz removed what he found diseased, and recurrence will be prevented for a time; but even if no glands have been infiltrated, I think a recurrence is to be expected, as it appears again even in the case of the removal of the uterus. I have never removed the uterus entirely, because I have always, upon making an examination of the organ, found some slight infiltration, with adhesions to certain tissues, which were not to be diagnosed by palpation.

A uterus which is movable, with no infiltration of the vaginal wall or of the broad ligaments, appears to offer an indication for removal, but when upon incision through the vagina or abdomen, we find the omentum or intestines adherent and infiltrated, the time for an operation has passed; because even if we remove the organ, the rapid spreading of the growth from the surrounding tissue is in the very near future. But where it is possible to remove the diseased tissues, I think we should always do so, because even if life is not very much prolonged, it is made more bearable. By the removal of cancer of the cervix, where we have hæmorrhage and sloughing, the patient often sinking from the loss of material, we will get rid of a very disagreeable condition, and the patient is made comfortable by the removal of the annoying painful masses. I presume this was the case with Dr. Lutz's case.

Dr. Lutz.—There was not much hæmorrhage.

Dr. Engelmann.—Well, as long as the tissues can be removed—and I think in Dr. Pollak's case there are tissues that can be removed, the bone doesn't appear to be affected, but, even if it is, the removal of the tissues to the bone is desirable, as in the case Dr. Dean refers to—remove all of the tissues to the orbit and clean it out thoroughly.

Dr. Edward Borck.—Do you think it justifiable to remove the whole uterus in a case of cancer, I mean early before any of the arteries are affected?

Dr. Engelmann.—Most assuredly, and I think it is a very hopeful operation. We must be sure that there is no infiltration of the other tissues, and that the disease is thoroughly confined to the uterus. The results, I think, are excellent.

Dr. Lutz.—I want to ask Dr. Engelmann another question. How are we to diagnose those cases of cancer in which the disease has its beginning in the fundus, and there are some such cases? What are our diagnostic resources?

Dr. Engelmann.—That question is to the point. The diagnosis is extremely difficult, indeed. The reason that the operation for removal is not more frequently done is because of this very fact, that cancer of the fundus, where the operation is most indicated, is most difficult of diagnosis. I have had a few of those cases, and when I was prepared to operate, though I thought it was early enough, I found it was too late. They do not present the symptoms, the characteristic symptoms of cancer of the neck; the characteristic pain is absent entirely; the hæmorrhage, as well as the discharge, is limited. I have seen a case or two of fungoid growth, which I suspected for many months to be cancer. The only possibility of diagnosis is by the use of the scoop. The use of the scoop would be the proper treatment, in case of a growth supposed to be an adenoma, or hypertrophy of the mucous membrane, or a growth of any kind, and the microscopical examination would make the diagnosis. But the characteristic symptoms of cancer can not be depended upon in cancer of the fundus until very late.

Dr. Edward Borck.—Which operation do you prefer, the removal of the uterus by the vagina, or through the abdominal section?

Dr. Engelmann.—The removal of the uterus through the abdominal incision has been almost entirely given up The removal *per vaginam* gives the best result; about fifty per cent. recover, whilst through the abdominal section the cases are almost altogether fatal.

Dr. Dean.—I wish to say, in reference to the doctor's statement about these cancers coming late, that it is especially so with cancers of the rectum. It has been so with all the cases that I have seen, and I think that is the reason of the great mortality. In the first place, it is kept secret by the patient, and in the next place, very few patients that I have come in contact with, were aware of the trouble until it had existed for some time. Dr. Legge will remember a case that we had in the City Hospital, in which I gained the consent of the patient to an operation. The rectum was so far closed, that the stools were ribbon-like, and he had to be kept constantly under the influence of physic. A soft gum catheter passed only with difficulty. I gained his consent to give chloroform, and examine the rectum thoroughly, and, if necessary, to perform an operation; but when the time came to operate, he would not consent to the operation. All he would consent to was that we should use the curette, which I told him, at the best, could only serve to prolong his life a little while, and that we could not hope to effect a radical cure. I used the curette and made a large channel––as large as I dared—especially towards the bladder. I found that the ring had ulcerated, which is not an unusual thing where the ring goes entirely around. It commences to ulcerate about its middle first, so that, as in this case, we have two cancers, a large ring above and a ring below. The cancer had increased so much, that such large nutrition couldn't go on in it, and consequently it had softened in the middle. This man's life was prolonged some months, and his comfort greatly increased.

I saw a fourth case about a year ago, and this case illustrates how often persons have this trouble and do not know it until it is very marked. This patient was a man of very marked intelligence, a mathematician and engineer, and his question will show his intelligence. After examining him, he asked me what per cent. of such cases recovered. When I told him the nature of the trouble, he was surprised, as were also his friends, many of whom were my friends also, and I felt that by this plain statement I had lost the confidence of some of them, as they seemed determined that the man was not in the condition that I said that he was. He went East, and was there for nearly a year, and, at last accounts, he was nearly at the point of death. This man said that he first noticed a little pain, as if he was wounded by something sharp, as if the hull of an apple around the seed had scratched him. He omitted going to stool in the morning, as was his custom; he got up late and this continued. He was then treated for months for dysentery. Finally, a physician examined him and found something more formidable. Although I am not in general practice, yet as he was a friend, I made an examination and gave the diagnosis of cancer. The man had gone for a long time without discovering his condition. I believe that if the man had known of it in season, and been operated upon, his life would have been saved.

Dr. Ewd. Borck.—The reason I asked the question, about the removal of the uterus, is because on Thursday morning last a lady thirty-nine or forty years old came to me, who has cancer of the uterus, which has been in existence nine months. I examined her, and am satisfied that there is not much infiltration. I think the neck of the organ is involved. It is a pretty large growth. She was brought to the hospital and thoroughly examined, and then I found that the fundus was involved, but not far, and I recommended the removal of the whole uterus, which, I think, I would prefer to do, and I don't think there would be any danger. But I couldn't get her consent and I scooped it out pretty thoroughly. The patient is doing very well. In my opinion, the removal of uterus would be preferable, and I am glad Dr. Engelmann says it is his experience. I think it should be advised.

Dr. Lutz.—I wish to say that I never felt so helpless, and never felt so thoroughly convinced that nothing could be done, as I have felt in a case of cancer of the uterus that I have under observation now. I think I can justly disclaim for myself that I am ordinarily very timid; but I have a case that I am afraid to scoop. It is in a woman that came under the observation of her physician about a year ago, who found what he pronounced to be a small ulcer on the neck, and scooped it. It returned however, or rather grew larger, until when I saw her for the first time, the entire cervix was obliterated; there was nothing left, except a pear-shaped opening in the upper wall of the vagina, and on putting your finger into it, a very large cavity was found. The walls of this cavity are so thin, that if you put your hand above the symphysis, or rather to the side of the bladder, you can feel with your finger the walls of the womb. She has suffered a number of times from severe hemorrhages. I have been called upon twice, and each time had to tampon that cavity to keep her from bleeding to death. The discharge, in this case, is so offensive that the house really smells of it, although the woman is as cleanly as such a patient could be. I have seen these cases, where I was utterly helpless—could do nothing at all. Of course, in a case of this kind I don't think a prudent man would suggest operative interference. I don't see what could be gained by it. I should be afraid to scoop the uterus, for fear of opening the peritoneum. Although experience will make one a very skillful operator with the scoop, I feel that it could not be done in this case without opening the peritoneum. Then again, the operation for the removal of the uterus, while heralded as something that can be done with comparative safety, we have but to read the account of how many patients have died from the operation, and we will not consider it so successful an operation. It seems that the removal of the uterus, unlike the removal of other organs, creates a much greater impression upon the system at large. I am somewhat familiar with the literature on this subject, but I believe that the removal of the uterus is probably one of the most formidable operations that we are called upon to perform. Operations upon the vaginal canal, or stomach, or the removal of neoplasms from the other organs, do not seem to bear any proportion and relationship at all with the removal of the uterus. We understand, of course, that there is a nervous connection of the uterus, and all that.

I was going to say in regard to excision of the rectum, that the rule which Dr. Dean mentioned, and which, if I am not mistaken, was first laid down or suggested by——— who was the first to perform the operation in modern times, that if you can reach the index finger above the diseased mass, it should be excised, was, I imagine, first laid down on anatomical grounds, and depended upon the distance that the peritoneum dips down and around the rectum. The great danger apprehended, until modern surgery proved that the peritoneum could be opened with less danger than was formerly supposed, was the injury of the peritoneum, and that is the reason the rule was laid down. Now it is a fact which has been proved in the dead house, that the distance to which the peritoneum dips varies considerably in different individuals. We know we have various rules laid down about the various relationships of organs and parts to each other: and we know, on the other hand, that in the dead room we find these relationships changed in almost every cadaver. Then there is another point, that I have seen stress laid upon in works in connection with this subject, and that is that the peritoneum, as it dips down and encircles the rectum, is loosely attached ; it is not so firmly attached to the rectum as it is to most of the upper portions of the abdominal viscera. Take, as an illustration, the method by which the peritoneum covers the intestines or stomach. You know there is a very intimate blending of the second coat of the stomach with the peritoneum. Now this does not occur in the lower portion of the rectum ; on the contrary, you can pull the rectum down and easily dissect off portions of the peritoneum as it dips down. The rule is that three and a half inches may be removed only, or rather three and a half inches is the line of safety, as laid down ; while in this case, that I reported, I removed five inches without opening the peritoneum.

Then again the mere fact, that the peritoneum is opened, is by no means the precursor of a necessarily fatal issue; on the contrary, we know how badly the peritoneum is treated sometimes, and yet the patients recover. The recovery from peritonitis, after surgical operation, is probably due to the practice of the principles of antisepsis, as laid down and followed with various modifications. The cooling of the peritoneum, exposure of large surfaces, which creates such reflex influences upon the heart, is regulated by a proper temperature, to which the patient is subjected, and provision for the proper drainage. The adoption of these measures, in connection with the opening of the peritoneum, is one of the reasons why the peritoneum may now be opened with impunity, where formerly a necessarily fatal issue followed such opening. Now, in reference to those cases, in which the rectum can be removed, as I said before, I don't believe in that bold surgery which removes organs in their entirety; yet, whenever we can possibly dissect away the neoplasm, where it is most usually attached, other things being equal, I don't believe I would allow the distance to which the growth extends up the bowel to interfere with the surgical procedure. I should rather be inclined to take the risk.

As to lumbar colotomy, in these cases, of course I should hold that only as an extreme measure; because, whilst the greater portion of the feces escape through the artificial anus, some of it will find its way down, and then you have a most obstinate constipation, or impaction of the feces to deal with. Then, too, we know, on the other hand, that the sudden irritation of the neoplasm, by the passage over it of anything irritating, has a tendency to increase the rapidity of the growth. Like any of the malignant growths at the pyloric end of the stomach, the sudden passages over it of the fluid increases the rapidity of the growth. In lumbar colotomy you add another annoyance to the already numerous loathsome conditions of the patient. His feces are constantly passing without control of any kind. Of course, each has its legitimate place in surgery of the bowels. There are certain cases in which it is preferable, but in properly selected cases, lumbar colotomy should never come into consideration as against the excision of the cancerous rectum.

I want to say one word in regard to the removal of this growth in the eye. Last June, a man was brought to me from the country, one of my medical friends, suffering with an epithelioma, which started at the lower eyelid and extended along the conjunctiva, until it entirely destroyed the eye, and extended along, apparently, as far as I could see. I could see that it extended away back into the orbit, apparently involving also the upper eyelid. In that case I cleaned out the entire orbit; took everything out, because there was nothing in it that I didn't think was involved. I also removed the orbital plate of the superior maxillary bone, and a part of the internal surface of the orbit. The granulations which sprang up afterwards looked healthy. I have now lost sight of the case. I kept him under observation for three months and then sent him back to the country. After the operation the patient was free from pain, whereas before he had had nothing but sleepless nights.

ANEURISM OF THE AORTA PRODUCING PARALYSIS OF THE RIGHT VOCAL CORD.

Dr. Mulhall.—I have two specimens here, which will be of some interest to the society. The small one is an example of a fusiform dilatation of the aorta, a fusiform aneurism, and in addition thereto, a sacculated aneurism. There are three or four saccules or bulgings of the aorta connected with the aneurismal thickening; also, a calcareous degeneration of the coats of the aorta. You will also see in this specimen that one of the saccules has pressed against the left common carotid and produced obliteration of it. The patient, during life, had no pulsation of the carotid in the left side. The aneurism also involves the right arteria innominata. It is an exceedingly interesting specimen. This is the larynx from the same individual. When I first saw him, there was paralysis of neither of the vocal cords, but inco-ordinate movement in both, showing an intermittent pressure on both recurrent laryngeal nerves. Gradually the pressure on the right recurrent laryngeal became steady and continuous, and he got paralysis of adduction, the result of which was inaction of the posterior crico-arytænoideous muscle, which in this specimen shows very prettily the atrophy. The patient had also on his left vocal cord a papillomata, which is very prettily seen. This had nothing to do with the interest of the case, except that it happened to be there; it was the same size nine months ago as it is now. I noticed it in examining his larynx. There are a great many points of interest connected with the case, but as I knew there was to be a paper read to-night, I didn't get up the notes of the case. I may report the case some time. He had, for instance, suppurative bronchitis of the right lung, I think from the pressure on the pneumogastric. He had dyspnœa of two different kinds; one was constant, the other was not. The explanation of this is, as will be seen here by the specimen—I have a portion of the trachea here—that one of the sacculated aneurisms presses against the trachea, and this causes continuous dyspnœa. He also had, from time to time, very great dyspnœa, which almost threatened his life and resulted from the paralysis of the pneumogastric. That is all I have to say of the case now. The patient never had syphilis; but he was rather subject to vertigo. He was fifty-six years of age; his hearing was perfectly good; there was no tinnitus; and his sight was perfectly good on both sides. He was hoarse all the time.

Dr. Dean.—What was the condition of the radial arteries?

Dr. Mulhall.—I never noticed any difference; the pulse beat was intermittent.

Dr. Dean.—What was the condition of the artery itself?

Dr. Mulhall.—It was rather rigid, but there was nothing to lead me to suspect such a condition as there is there.

AN ANEURISMAL CLOT WEIGHING TWO POUNDS SEVEN OUNCES.

Dr. Scott.—I regret that I didn't know that Dr. Mulhall was going to present this very interesting specimen, as I have a specimen from a case somewhat similar, which the doctor will remember: A case of aneurism of the aorta in a man forty-eight years of age, five feet and ten inches in height, an Englishman by birth; and, by the way, it is said that the English are more liable to these aneurisms than almost any other nationality. This man applied to me for what he believed to be an attack of asthma. When he first came to see me I was very busy. He scarcely had any voice at all; he spoke in a whisper. He gave me the history of his case, which was that for some time, probably a year, he had been troubled with asthma, and he detailed all the symptoms of asthma. Sometimes he was taken with shortness of breath, and would have to get out of bed and go to the window and throw it open, so that he could get his breath. I was very busy at the time he called at my office, and prescribed for asthma without examining him at all. A few weeks after that he called at my office again, and I gave him a thorough examination, and discovered a large tumor under the sternum. His voice was then a low whisper, rather a sharp whisper. I then took him to Dr. Mulhall at the college clinic, for the purpose of getting him to examine the larynx. Dr. Mulhall examined the larynx, and I gave the doctor no history of the case at all. He told me there was paralysis of the vocal cords, and he also detected this large tumor. On making an auscultation of his heart, the basilar sound couldn't be heard in the proper place. The heart seemed to be in the epigastric region, pressed down about four inches from the natural position, down towards the left. The tumor, as evidenced by the dullness on percussion, extended from the ensiform cartilage to the upper part of the sternum, almost over the entire chest. My diagnosis, at that time, was mediastinal tumor, because there was no indication whatever of aneurism—none of the symptoms of aneurism were present. I then made an arrangement to have him come to my house, and have a thorough examination made by Dr. Mulhall and myself. I saw him on Sunday and gave him a careful examination, and was satisfied that he had a large mediastinal tumor. The case presented some interesting points, and I told him I wanted him to come to my office on Monday, so that we could give him a more thorough examination. On Monday morning he got up and intended to go to work, but he felt so unwell that he concluded that he wouldn't go to work; he came down to breakfast and went about the house as usual, and then went upstairs to his room, climbing a pair of stairs. The landlady went up in a few minutes, and found him breathing with a great deal of difficulty; in a few minutes she went back and he was dead. I was notified, and Dr. Mulhall and I got the friends to consent to a *post-mortem*, which was made in the presence of Drs. Mulhall, Lemen, Borck, Homan and myself. Dr. August Bernays made the *post-mortem.* On opening the chest, his heart was found pressed down out of its place about four inches. We found an aneurism of the arch of the aorta, and when taken from the chest, the clot alone weighed two pounds seven ounces. It is one of the largest on record, I believe. Strange to say, there was scarcely any perceptible dilatation or hypertrophy of the walls of the heart, although it was pressed down so far, and had to carry the blood through this aneurismal mass, the channel through this clot being scarcely large enough to admit the finger. In this channel there were several recent clots, and to this is probably to be attributed the cause of death. A portion of these recent clots probably became detached, and lodged in the pulmonary circulation and caused death. This specimen is now at the St. Louis Medical College. The interesting part of this case to me was that there were no signs of aneurism at all, and it had been going on about two years. There was some little atheromatous degeneration, but very little.

Dr. Watkins.—I would like to ask Dr. Mulhall, what was the diagnosis in his case?

Dr. Mulhall.—When I first saw the case I at once diagnosed an aneurism; as I got on further, I began to doubt very greatly. From the schedule of symptoms, I satisfied myself that there was a tumor there, but of its nature I was uncertain. He had at the base of the heart a double murmur; there was no bruit; there was some dullness just at the top of the sternum, but it was very slight. There was an enormous pulsating tumor at the root of the neck about the sterno-cleido mastoid muscle, but this, after two months, almost totally disappeared. I was uncertain what the trouble was then. When I first saw him the diagnosis was that it was an aneurism, but it was as totally unlike the case Dr. Scott has mentioned, as two cases can be. In the case Dr. Scott reported, there was taken out a clot of laminated fibrine that weighed two pounds and seven ounces. It was the most extraordinary amount of fibrine that I ever saw in an aneurism in my life. It was not blood at all; it was fibrine, and you could pare off the lamina. I wish to make a little correction in regard to the statement of the doctor. I believed he stated that I said there was paralysis of the cord. There was paralysis of adduction of the left vocal cord.

Dr. Watkins.—The reason I asked the question I did, was because three years ago I had a patient under observation, whom I treated blindly for some two or three months for what seemed to be asthma and pulmonary affection. I was not able to make it out by examination from time to time, and I examined him very carefully. He was a coal-miner, and was at work one day, and his comrade left him for three or four minutes, and when he went back he found the patient was dead with the pick still in his hand, and the surroundings indicated that the death had been instantaneous. Upon making a *post mortem*, it was found that there was an aneurism of the aorta just below the arch. It was of an immense size. The aneurism had ruptured and filled the cavity with blood. It was impossible to ascertain, previous to death, what the trouble was. There was no bruit anywhere in the tract, and the *post-mortem* only showed the cause of death. I simply mention this to back up the fact of the difficulty of diagnosing an aneurism of the aorta in some cases. It is very difficult at some times, while at others it is very easy. Certainly, every one must be in doubt in regard to the nature of a thoracic growth, unless there be at least one symptom which is pathognomonic.

Report on Recent Progress in Gynæcology and Obstetrics.

CASTRATION OF WOMEN.

In a recent paper by Tauffer,* the author presents the following conclusions:

1. This operation, made with proper precautions, does not present great dangers; the inevitable mortality is only ten per cent.
2. Make it under spray: close the abdomen; drainage only exceptionally necessary.
3. The patient's being near the menopause is not a contra-indication, for it can not be predicted when the menses will finally cease.
4. It is not possible to follow the rule of Hegar, that is, that the ovaries must be accessible to palpation.
5. Double ovariotomy is to be done, even when the second ovary is not diseased, save in exceptional cases.
6. Remove the oviducts if they are diseased.
7. Hystero-epilepsy is curable by castration.
8. The symptoms of which the association has received the name of hysteria are in many cases to be attributed to an ovarian malady.
9. The question of ligating large nutritious vessels passing to a fibro-myoma is worthy of consideration.
10. As to prognosis, it is probable that the menopause will promptly follow the operation, except when the neighboring organs have become inflamed; such inflammations delay the critical age.
11. The result can not generally be judged until some months after the operation.

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*Zeitsch. f. Geb. und Gyn. ix. 1; Annales de Gynecologie, December.

12. The question of the influence of diseases of the genital organs upon certain psychoses is matter of study.

13. The same is true as to the effect of castration upon the psychoses.

14. For our instruction, it is desirable that the cases of castration may be classified according to the plan proposed by Hegar.

THE INFLUENCE OF PUERPERAL EPIDEMICS UPON THE TIME OF LABOR.

M. Hervieux* made a communication to the Academie de Médecine, in which he remarks that a certain number of pregnant women are susceptible of contracting a puerperal septicæmia, which sometimes causes premature labor, and this septicæmia may be developed, with all its characteristics, after the premature expulsion of the fœtus. But these familiar facts were regarded as exceptional. On the other hand, Hervieux holds it to be exceptional that when a pregnant woman is in an infected atmosphere she is not infected. He has been led to this conclusion by statistics taken at the Maternité during twelve years. By these statistics it is shown that premature labors were in proportion to the intensity of puerperal affections. With improvement in the sanitary condition, the number of premature labors and of maternal deaths underwent a corresponding diminution. In his treatise on abortion M. Garimond has asserted infection and contagion as very probable causes of abortion, without, however, giving the clinical proof, and this proof is now made by Hervieux. The longer a pregnant woman sojourns in an infected medium, the greater the liability to premature labor; and, therefore, in a time of an epidemic every maternity should be closed, and, no epidemic existing, pregnant women ought not to be admitted until as near as possible to labor.

A theoretical consequence is obvious, and that is that the placental wound is not the avenue of entrance of the puerperal poison, or at least the sole way by which it enters. In the pregnant woman the uterine cavity is closed, and consequently there is no internal surface comparable to a wound, no gaping mouths of vessels, and therefore no point accessible to the septic principle.

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* Archives Generales, December.

LESSENING THE DURATION AND THE PAIN OF NATURAL LABOR.

Dr. John Morris, of Baltimore, discusses* the question as to means that can be judiciously used to shorten the term and lesson the pain of natural labor. Dr. Morris advises, when the first stage of labor is slow, and interference advisable from the delay, or from other cause, detaching by means of the finger the membranes from around the cervix. If premature rupture of the membranes occur, dilate the os with the finger, carefully swept round it during a pain. Where a delay in dilatation is caused by rigidity of the os, morphia, hypodermatically, or opium by the mouth. In unequal spasmodic contractions, use Braun's colpeurynter. If, the os being moderately dilated, the cervix is narrowed like a band, use Barne's dilators.

According to Dr. Morris, though the os may be pretty well dilated, labor may be delayed by the firmness, dryness, and want of distensibility of the vagina: in this condition he advises copious injections of hot water, and, if this should fail, introduce a cotton tampon saturated with glycerine and lard. If inertia is present, one or two drachms of fluid extract of ergot are given; when there is arrest of the head from an occipito-posterior position, the forceps is needed. When the head is in the pelvic cavity, and the os dilated, it may be, only to the size of half a dollar, and the labor is lingering, rupture the membranes, draw the os forward during pain and use strong external pressure. The author remarks, "Ergot is not generally necessary in this condition, but if the pains are ineffectual its administration is most beneficial,"—advice the latter part of which, the reporter begs leave to suggest, almost justifies the radicalism shown by some of the members of the American Gynæcological Society at its last meeting, who thought it would be a blessing if ergot were banished from obstetric practice. When the head has descended to the perineum, and the labor lingers, ergot and external compression; but if delivery does not take place speedily, the straight, Beatty forceps.

ATTENTION REQUIRED WHEN THE LOCHIAL DISCHARGE IS NORMAL.

A very interesting paper by Dr. Eustache, entitled "Études sur les Lochies dans l'État normal et les États pathologiques," has recently appeared in successive numbers of the *Archives de Tocologie.* We present an abstract of the directions Dr. Eustache gives as to the care of the lochia when this discharge is normal.

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*Journal of the American Medical Association.

The accoucheur ought to inquire as to the number of napkins used since his last visit: he learns the abundance, the color, and the odor of the lochia. If the flow is too abundant, if blood continues beyond the third or fourth day, and especially if there be a decided odor to the discharge, his attention is to be directed to modifying these characters.

The genital parts are carefully washed after delivery; this washing to be done with simple warm water, or with water containing a small quantity of carbolic acid. A napkin is placed over the vulva, and at the end of an hour changed for a clean one, and then a little less frequently as the flow lessens. Each time that the nurse removes the napkin she must be careful to wipe thoroughly the external parts, so that they may not remain soiled; she ought also to separate the labia, so as to free the vulval orifice of any obstructing clots. Morning and evening she will complete this toilet of the external genital parts by washing them with warm water, or, better, with warm water made aromatic by the addition of a little vinegar or cologne water.

The accoucheur ought to see that there is a free discharge of the lochia, guarding against the retention of clots in the vulva or in the vagina, and direct that the napkin shall not be so closely applied that it acts as a plug. Position ought to be made to intervene to assist the lochial flow. Except in some cases of post-partum hemorrhage, or of threatened syncope, it is always preferable for the patient to be in a slightly-inclined position; that is to say, let the head and upper part of the trunk be raised somewhat by pillows, for the purpose of favoring by gravity the flow of the lochia, thus avoiding their accumulation and remaining in the vagina. The patient may usually be allowed to turn from one side to the other, either in eating or nursing her infant. From the second day she may take her meals in a sitting position: the vagina will thus be naturally emptied of its contents.

It ought to be remarked that the most dependent part of the genital organs is not the vulva, but rather the deep part of the vagina corresponding to the neck of the uterus; and that the neck is very frequently the seat of rents, and if it is constantly bathed in the lochia it may be the medium of septic absorption. In surgery we use drainage-tubes to favor the flow of pus; in obstetrics the parts are sufficiently disposed to spontaneous drainage, provided absolute immobility is not observed. Vaginal injections are not employed unless the lochia have a decidedly bad odor. Dr. Eustache then uses carbolized water; but he remarks that he looks upon the injection as detersive rather than antiseptic.

If the flow does not cease to be red the third day, especially if it continues red the fourth and the fifth day, it is necessary to find out the cause; and generally it will be found to depend upon imperfect retraction of the uterus. Under these circumstances ergot is to be given by the mouth; ergotin hypodermetically is objectionable, for it may cause erysipelas. It is almost a rule that the first getting up, especially when it takes place about the seventh or the eighth day, is followed by a return of the red flow. This phenomenon tells us that the retraction and restoration of the uterus are far from being complete, and is an indication for rest in bed.

When the lochial discharge is prematurely diminished or suppressed, this condition is not in itself an indication for therapeutic means. While this suppression is not to be regarded as a primary morbid state, and, therefore, efforts to recall the flow are to be condemned, therapeutics should be directed to the different morbid states, to the various local or constitutional maladies which may exist.

Retention of the lochia may result from spasmodic closure of the os uteri, or from œdematous swelling of the labia majora and of the nymphæ. An examination of the finger will readily detect the retention from the latter cause, and the flow is thus readily restored.

NON-PUERPERAL PELVIC LYMPHADENITIS AND LYMPHANGITIS.

Dr. Mundé* has an interesting paper having this title. He rests his diagnosis of the affection described on the shape, size, tenderness, mobility, and number of the nodules, on their relation to the uterus (not being directly connected with it, but still not entirely independent of it), on a condition of the uterus which might readily produce inflammation or enlargement of the adjacent glands, the mobility of the uterus, and, finally, on the acknowledged presence of some lymphatic glands and numerous lymphatic vessels in the connective tissue surrounding the supravaginal portion of the neck. Dr. Mundé states that the points he desires to make in his paper are the following:

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*American Journal of Obstetrics, October.

1. That an inflammation of the pelvic lymphatic glands and vessels occurs in the non puerperal state far more frequently than is generally supposed.
2. That such inflammation generally becomes chronic, and very closely simulates so-called chronic pelvic peritonitis and cellulitis, both in symptoms and in physical properties.
3. That such lymphatics in a state of chronic inflammation possesses certain characteristic features which permit their recognition by the examining finger.
4. That this inflammation may either depend on and be secondary to uterine disease, or be entirely confined to the lymphatics and be apparently idiopathic.
5. That the treatment resembles that of chronic pelvic inflammation, with one exception—the primary necessity for the removal of the focus of irritation, if such exist, before the lymphatic inflammation can be permanently removed.

INFLUENCE OF DIPHTHERIA UPON PREGNANCY.

Dr. Auguste Olivier,* at the conclusion of a paper upon this subject, observes that diphtheria may be a cause of abortion, and therefore when it occurs in a pregnant woman may have exceptional gravity. The abortion is due, in a large number of cases, not to asphyxia or to the high temperature of the blood, but to an alteration of this liquid which, though badly defined, can not be disputed. The possibility of abortion, with its dangers, therefore, suggests the importance of isolation when pregnant women are in a ward where diphtheria occurs.

Granular Ovarian Cell.

The inaccurate diagnosis of ovarian tumors has certainly contributed something to the mistakes of medicine and in an operation of such capital importance no means of diagnosis that with sincerity and based on practical observation can afford to be neglected. Moreover, as at the present day it so frequently happens to the general practitioner to be obliged to operate for this affection it is incumbent on him that he obtains a clear idea of the characteristic features of the fluid obtainable from such a tumor, if any advantages can be obtained from such characteristics. In 1873, Dr. F. M. Drysdale published an account of what he considered to be the pathognomonic feature of the fluid of ovarian cysts, and called the characteristic element the ovarian granular cell. As not unfrequently happens when a man writes about something hitherto unobserved, he was not understood. The cause of the misunderstanding does not appear to have been with Dr. Drysdale, but must rather be referred to the inattentive reading of those attempting to follow him. One source of such an error has been in the fact that the same pathological element is sometimes found in other abnormal developments in different parts of the body. But Dr. D. distinctly points out the fact that he does not pretend that it is possible to differentiate the fluid from an ovarian tumor from a tumor or other pathological process of the organism; but given the fluid drawn in good faith from the abdominal cavity, he pretends to determine by the presence of the Granular Ovarian cell whether it comes from a cyst of the ovary or not. Consequently it is merely waste of time to present for microscopical examination a fluid of pathological origin taken from a part of the body other than the abdominal cavity and expect a decision as to its ovarian character. Relative to this point the physician interested in the case can scarcely be in doubt—he can scarcely mistake an abscess of the abdominal wall for an ovarian tumor.

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*Archives Generales, October.

Dr. Drysdale, returning to the subject after a lapse of ten years with the associated, extra experience in the investigation of the subject, sustains the position he formerly took relative to the subject, and repeats himself by saying:

"But no matter what other cells may be present or absent, the cell which is almost invariably found in these fluids is the granular cell.

"This granular cell, in ovarian fluid, is generally round but sometimes a little oval in form, is very delicate, transparent, and contains a number of fine granules, but no nucleus. The granules have a clear, well defined outline. These cells differ greatly in size, but their structure is always the same. They may be seen as small as the one five-thousandth of an inch in diameter, and from this to the one two-thousandth of an inch; in some instances I have found them much larger, but the size most commonly met with is that of a pus cell.

"The addition of acetic acid caused the granules to appear more distinct, while the cell is rendered more transparent. When ether is added the granules become nearly transparent, but the aspect of the cell is not changed. This granular cell may be distinguished from the pus cell, lymph corpuscle, white blood cell, and other cells which resemble them, both by the appearance of the cell and by its behavior with acetic acid.

"The pus and other cells which have just been named are often distinctly granular; but the granules are not so clearly defined as in the granular cell found in ovarian disease, owing to the partial opacity of these cells; and when the granular cell of ovarian disease and the pus cell are placed together under the microscope, this difference is very apparent. In addition to the opacity of these cells, we frequently find their cell wall wrinkled rather than granular; and further, in the fresh state, they are often seen to contain a body resembling a nucleus.

"But if there is any doubt as to the nature of the cell, the addition of acetic acid dispels it; for if it is a pus cell, or any of the cells named above, it will, on adding this acid, be seen to increase in size, become very transparent, and nuclei, varying in number from one to four, will become visible. Should the cell, however, be an ovarian granular cell, the addition of this acid will merely increase its transparency and show the granules more distinctly. This ovarian granular cell I consider as diagnostic of ovarian dropsy, and have seldom failed to find it in this fluid.

"The compound granular cell, the granule cell of Paget and others, or inflammation corpuscle of Gluge, is also occasionally present in these fluids, and might possibly be mistaken for the ovarian granular cell; but it is not difficult to distinguish them from each other. Gluge's cell is usually much larger and more opaque than the ovarian cell, and has the appearance of an aggregation of minute oil globules, sometimes inclosed in a cell wall, and at others deficient in this respect. The granules are coarser and vary in size, while the granules of the ovarian cell are more uniform and very small. Again, the behavior of these cells on the addition of ether will at once decide the question; for while the ovarian granular cell remains nearly unaffected by it, or at most has its granules made paler, the cell of Gluge loses its granular appearance, and sometimes entirely disappears through the solution of its contents by the ether."

Speaking of cysts of the broad ligament he says: "Cysts of the broad ligament can be distinguished from ovarian by the fluid which they contain. This fluid I have described as perfectly colorless, transparent and thin, like pure water. Its specific gravity is very low. Under the microscope a few epithelial cells are sometimes discovered in it, but generally it proves to be free from objects. I regard it as peculiar to cysts of the broad ligament as I have never found it in any other abdominal cyst, and further, in the examination of ninety-seven specimens of it, I have never met with the ovarian cell in an uncomplicated case.

"But there is another variety of these growths in which an ovarian element adds to the difficulty of diagnosis. In these cases I have found the ovary incorporated in the wall of the broad ligament cyst, and, having itself undergone cystic degeneration, discharging its contents into that of the broad ligament. In this manner a tumor which commences as a cyst of the broad ligament may apparently be converted into an ovarian tumor, and lead the operator to suppose that his first diagnosis, based upon the character of the fluid, was erroneous."

The only case in which he has found this ovarian cell in a region where it could be confounded with an ovarian growth has been in a cyst of the kidney which furnishes a cell with similar properties. He thus describes the fluid in which they were found: "It was of a dirty light-brown color. Its specific gravity was 1.020. Its reaction was alkaline. Under the microscope it was seen to contain plates of cholesterin, coagulated fibrin, blood-cells, oil globules, and great quantities of granular cells, which, in appearance, resembled those found in ovarian fluid." Another specimen of the fluid, passed a few days later, was examined, found to contain less cholesterin, and but few granular cells were present. Casts of the uriniferous tubes and crystals of uric acid were also discovered in the specimen. In these renal cysts, then, can be occasionally found cells which can not be distinguished from the ovarian cell. It forms the only exception that I know of to the rule that the ovarian cell is diagnostic of ovarian fluid.

Detention in Asylums.

Dr. Parsons, in a paper read before the N. Y. Neurological Society, as we learn from the *Richmond Med. Journal*, spoke, first, of the question, whether sane persons were not often improperly or unjustly detained in asylums for the insane; and secondly, whether many uncured and incurable patients, who were now methodically detained in asylums, might not advantageously be returned to their relatives, or placed in the care of private families under the State supervision.

It was assumed, in the first instance, that the detention of patients after recovery had taken place for a longer time than might be required, was quite possible and even probable in some instances. But he claimed that such detentions were not usually of serious import to the patient; that, on the other hand, too early discharge might be more injurious. It was also admitted that maliciously unjustifiable detentions were quite possible, as any sort of injustice is possible on the part of persons holding positions of power and responsibility. But reasons were urged by Dr. Parsons in support of the belief that such malicious detentions were, at least, very rare; that sentiments of honor and professional pride were strong deterrents, to say nothing of the great danger of detection in the commission of the wrong, and the ease with which patients who were decidedly insane obtained their enlogement through the intervention of the courts.

Cogent reasons were given why various classes of convalescents ought to remain under asylum care for a period of time after they appeared to be well; as, for instance, where they would be immediately subjected to the exciting cause of their insanity on their return, when the progress toward convalescence has been characterized by relapses, or when dangerous delusions had been entertained and had faded away so gradually that there were difficulties in judging whether or not they had passed away entirely.

But, on the other hand, the discharge of certain uncured curables before they were well was advised, as when after making a certain degree of improvement, this improvement stopped and the patient seemed to retrograde. It might be safe and highly advisable to discharge some of these patients before they were well.

The major part of the paper was devoted, however, to an advocacy of the discharge from the asylum of harmless incurables, and their return to the care of their friends, or placing them with ordinary families as boarders and, in some sort, as members of the families. It was claimed by the reader that, however comfortable and happy such patients may appear to be in large asylums, there are many causes of annoyance and discomfort that would not be experienced in ordinary family life ; that, notwithstanding the fine buildings they occupy and their freedom from care, they are still prisoners and exposed to many disagreeable associations and associates. Quotations were made from Dr. Bucknill and from Dr. Maudsley, strongly supporting these views.

The question was then considered, what classes of incurables might safely and with benefit be released from asylum restraints. Since, in the case of a great majority of such patients, moderate cost of maintenance would be essential, those only would be adopted who were quiet and orderly and would require no especial attendance or supervision. Habits of industry would be favorable.

Whether such patients would do better with their relatives or with strangers, would depend on the circumstances of the family, the state of health, the surroundings, the feelings or notions of the patients, etc. It would be found, however, that many patients who would not do well with their own kindred, would be happy, contented and useful with congenial strangers. It would be impossible for the patient to resume his former position and influence in his own family, and hence he would be subjected to irritating restrictions and annoyance there.

As a preliminary measure, a system of legalized furloughs was advocated, to the end that at first the patient might still be under legal restrictions and easily returned to the asylum if the trial at large should prove a failure. Properly constituted authorities should make the selection of patients for the trial, with the assistance and under the advice of the Asylum Superintendent.

The families in which the patients should be placed should be selected with great care. While, at first, there might be found very few suitable families who would assume the charge, it was thought that, when a beginning had been made, plenty of suitable homes would be offered. Reference was made to the multitude of respectable and responsible families who take summer boarders for a moderate compensation, and the probability that some of these families would prefer one or two permanent patient boarders to a number of sane boarders for a short season during the busiest portion of the year. A suitable system of visitation and of reports was advocated. The paper closed with the following summary of conclusions, to wit:

1. That, inasmuch as many recoveries take place in asylums for the insane, it is to be expected that some convalescent patients may at any time be found in the wards.

2. That while possibly, now and then a convalescent patient may be detained on probation an unnecessary period of time, such cases are not of frequent occurrence, nor important in their consequences when they happen; and that when they do occur, the detention is very rarely indeed through criminal intent.

3. That many harmless incurables are unnecessarily detained in asylums for the insane; that these incurables would be happier in the enjoyment of ordinary family life and associations, and that systematic efforts should be made to secure their enlogement and their establishment under family care.

4. That under certain circumstances curable patients should be removed from asylum restraint and associations while yet uncured.

Owing to the lateness of the hour, the discussion upon Dr. Parson's paper was postponed until the next meeting of the Society.

External Manipulations in Obstetric Practice.

Dr. George J. Engelmann, of St. Louis, in the course of a paper on this subject, read before the St Louis Obstetrical and Gynecological Society, October 18, 1883, and published in the *Obstetric Gazette*, January, 1884, says:

Old and well known, familiar to many, as these methods are in obstetric practice, they have been, I may say, rather instinctively resorted to by the ignorant, than used, defined and developed by the scientific practitioner. Though at all times frequently resorted to, Crede was the first to call attention to one of these manipulations for one particular purpose, and elevate it to the rank of a scientific method. They are all valuable, and deserve greater attention and study than has heretofore been devoted to them on the part of the obstetrician.

External manipulations, especially massage and expression, are an aid to the abdominal muscles and uterine forces, and of great importance in the management of labor, as an aid in the same direction with that force so necessary to the normal expulsion of the fœtus, the *vis a tergo*. Though appreciated and advocated by many leading obstetricians, they are not as yet the common property of every practitioner; they are valuable agents in the hands of every one, harmless if properly directed, and if more thoroughly understood and more frequently resorted to would, with the assistance of proper posture, accomplish all the objects for which ergot is given, and do away with any one indication for the use of that dangerous drug.

Massage and expression being the only resources in the hands of primitive people for the completion of difficult labor, they intuitively, by instinct and by long practice—not by scientific reasoning, of course—have brought them to a certain state of perfection, although brute force is more relied upon than dexterous manipulation. The methods are so simple, so natural, and so thoroughly in accordance with sound mechanical principles, that they have produced good results. Deprived of the brutality of physical force, and aided by science, these very means which have so long and so well served the ignorant will attain a high degree of perfection, and will serve far better the scientific obstetrician.

The physiological effects of massage are readily seen. The circulation is improved, absorption is furthered, pain is eased, the nerves are strengthened, the nervous system is quieted, and the physiological activity of the body increased without cost of fuel, muscular or nervous exertion, to the patient; there is a probability of greatly stimulated idio-muscular contractility, and it seems as if massage had an effect similar to electricity upon the muscles; the contractions thus aroused are a great factor in the process of absorption.

The importance of massage in obstetric practice is at once evident; it is a soothing, nerve-quieting influence, allays the excitement of the patient, and the muscles are stimulated to increased activity. It serves a most excellent purpose in uterine inertia; whilst absolutely harmless, uterine activity is increased, the expression of the child hastened, and, after it is delivered, contraction and involution furthered; atony may be thus overcome and hæmorrhage checked; but pressure upon the fundus, the direct *vis a tergo* expression, is, above all others, one of the most important factors in obstetric practice, and, by reason of its simplicity, within reach of every one.

1. The use of the hands for the rectification of position.
2. Massage.

3. Expression.

The rectification of position by external and combined manipulation is already well established in obstetric practice, and appreciated as a valuable scientific method, so that I shall confine my remarks to the uses of massage and expression.

Let us consider *massage*, under which term may be comprised the various external manipulations practiced for the purpose of inducing uterine activity, friction, kneading and compression.

The use of friction with the palm of the hand, gently curved, upon the fundus of the uterine globe, for the purpose of exciting muscular activity, should be more frequently resorted to, both to stimulate labor pains and to correct those irregular, varying and painful, but ineffectual pains which so often accompany the first stage. With firm and steady but gentle pressure, the hand is passed over the abdominal walls, above the uterine body, following the circular fibers of the fundus. This, of course, is most useful before expulsion of the ovum, when the uterus is large and prominent, easily reached, though also of service in the third stage of labor, and even after expulsion of the placenta. The benefit is an evident one; as has been stated, it is quieting, soothing, especially under the conditions of nervous excitement caused by these irregular pains, and muscular contractility is stimulated; the effect may be compared to that of electricity. It is harmless, and we can thus at times correct those painful, ineffectual efforts of the womb, or arouse and strengthen its healthy contraction.

Equally important is *massage proper*, the kneading or compressing of the uterine globe—not to be confounded with expression, the mechanical forcing out of the contents of the cavity. This is more like the kneading of other muscles in general massage, or shampooing—serviceable only when the size of the organ has been reduced, in the third stage of labor, after expulsion of the placenta, and in abortion. The fundus or sides of the womb are grasped antero-posteriorly between the ball of the thumb and fingers of one hand, and gently squeezed—compressed. This is not only a powerful excitor of uterine contractions, but also directly aids in expelling the contents of the cavity, and can, when necessary, readily be combined with *expression*. The latter is an equally important manipulation, which has played an important part in the history of midwifery of many of the primitive people through all time. It was their only hope; the only way in which they could force labor, in which they could express the unwilling fœtus from the womb—a *vis a tergo* which was their only resort.

Primitive peoples have various uncouth methods of practicing expression, the best of which are, perhaps, the tightening of a belt, the leaning with the uterine fundus against a staff firmly planted in the ground, or lying flat upon the ground with a pillow under the abdomen. A very effective and simple method is by encircling the body with the arms and pressing upon the womb, with palms of the hands clasped above the uterine globe, when the patient is seated in the lap of an assistant, when she is kneeling, squatting or standing, compressing the abdomen and pressing the womb down from above during each pain; a bandage passed around the body and tightened by assistants answers the same purpose as the encircling arms. An equally severe method adopted in retarded labor, and still advised in some of the modern works on obstetrics, is to have the ends of a towel or sheet, which is passed around the abdomen, crossed behind, each end being grasped by an assistant, whose duty it is to make firm traction upon the sheet, and especially to draw it tight as the abdomen diminishes in size, being careful to make traction in the intervals between the pains, lest the fœtus during this time should resume the position it occupied previous to the occurrence of the pain.

Expression is most conveniently made, under the circumstances in which we usually find the parturient woman, by the physician seated or standing at the bedside—best standing—the palm of the hand laid over and gently clasping the uterine fundus, slowly compressing this and forcing it in the direction of the pelvic axis, an excellent method, which has of late become quite popular in one of the cases in which expression is of service, in the expression of the placenta, when the uterine globe has been greatly diminished in volume. In expression of the after-coming head in breech presentations, where it is an assistance of the utmost importance, where the manipulations of the accoucheur are greatly aided, and often ineffective without proper expression by the hands of an assistant, the practice is somewhat different. In this case, as well as in the expression of the body of the child, whenever the uterus is large in size, it should be made by the hands of the assistant standing or kneeling by the bedside, facing the patient's lower extremities, the palms of both hands upon the uterine fundus, the thumbs and the balls of the hands together upon its center, the fingers snugly encompassing the body and the sides. The line of pressure varies with the plane of the pelvis occupied by the part to be expressed, and should be made firmly during a pain or during the efforts at traction. It is a steady pressure in the direction of the pelvic axis, usually made either to aid the entry of the head into the inlet, straightening the oblique position of the womb and forcing the head to descend, or to assist the abdominal muscles during its expulsion; but, above all, to aid in the delivery of the shoulders and after-coming head.

Of these external manipulations, both massage and expression are valuable factors in the management of ordinary labor. Friction, to arouse labor pains and correct them if irregular, mitigate suffering and augment their force, especially in the first stage of labor, though useful also in the second or third. Massage, kneading and compression become of service as labor progresses, as friction is less applicable and the wound diminishes in size; to improve and strengthen, to stimulate the efforts of the uterine muscle, both during labor proper, the second and third stage, as well as after expulsion of the placenta to effect permanent contraction—the latter being, perhaps, one of its most important objects. Expression is resorted to in aid of the abdominal muscles, indirectly of the uterine muscle. It heightens the effect of abdominal pressure; it fixes the uterine fundus, aids the muscular contractions, and keeps up the effect during their interval; it is of service in rectifying the obliquity of the womb, in directing the presenting part into the pelvic inlet, in forcing it through the outlet, but especially in the expulsion of the shoulders and after-coming head, and in delivery of the placenta.

Microscopy.

A Fly's Tongue.—Mr. C. M. Vorer, in the *American Microscopical Journal*, for securing the whole of a fly's tongue for microscopical purposes says: "Split one end of a small stick for an inch or so, and holding the split open by a knife-blade, place the severed head in the cleft with the top downward, and, withdrawing knifeblade, allow the stick to close upon the head, when it will fully distend the tongue. Now dip the head and tongue in turpentine and leave it immersed for a few days, when it will be found well cleaned, still perfectly distended, and can be released from the stick or cut from the head without danger of its collapsing. Mounted in a cell in balsam, it is a very beautiful object."

To Mount Pollen.—Pollens make very beautiful objects. All flowers have them, and they differ in appearance in each variety, so that if one will devote a slide to the pollens of each flower, a very interesting cabinet can be secured. If they are small and transparent, they may be mounted dry by merely sprinkling the dust, easily obtained from the flower, upon the slide and covering with a thin glass cover.

If opaque, they may be mounted in essential oil of lemon or glycerine.

The existence of a micrococcus of pneumonia has been confirmed by Prof. Carl Friedlander, of Berlin, who has cultivated these organisms and produced croupous pneumonia by inoculating them in dogs and mice. We will also here mention, as an item from the *Microscope*, that Pasteur has proved that the burial of diseased animals does not destroy the germs of disease, or obviate the chance of infection to any animals who may afterwards feed on the ground above where the body of the diseased animal was buried.

Mounting Insect Organs, Etc.—The *Royal Microscop. Jour.* gives the following directions for mounting such objects: "Soak in liq. potass. for a day, or longer, if large. Wash or lay out upon the slip, arrange and gently press, while in the water, with another slip. Remove to weak solution of acetic acid for a few hours. Wash again in clean water, and transfer to slip, and drop on spirits of wine; arrange the object and put over another clean slip; gently press and lightly fasten with thread; place end down in a small quantity of spirits of wine for a few hours. Then remove the thread and gently lift off one slip, the whole still wet with the spirit, when the object will adhere to one of the slips; drop on absolute alcohol and work object into center of slide. Then apply oil of cloves, and, in a few hours, the object will be ready for the balsam to finish."

Death of Mr. Hugh Powell.—Death has indeed been very busy in his work among distinguished opticians. In a comparatively short space of time, we have recorded the death of Nobert, of Germany; Charles Spencer, the pioneer maker of microscopes in this country; Nachet, of Paris; Tolles, of Boston, Mass., and others; and now we are called upon to chronicle the decease of Mr. Hugh Powell, of the house of Powell & Lealand, of London, England. As is well known, Powell & Lealand have stood at the head of the makers of fine objectives of England. It was by a sixteenth immersion of their make that Dr. J. J. Woodward, of the Army Medical Museum, of this country, was first able to demonstrate, by photographing them, the lines of the nineteenth band of Nobert's test-plate. Although other makers, especially our Tolles, have made lenses not at all inferior in excellence, yet, up to the present time, their work has maintained its high position. Mr. Powell, we have understood, was the member of the firm on whose scientific ability the reputation of the house was made.

Practical Benefits Conferred by the Microscope.

Prof. E. Ray Lankester, in his Presidential Address to the Section of Biology at the Southport meeting of the British Association for the Advancement of Science, strongly advocated the endowment of research, especially in Biology. Referring to the microscope, he said: "I need hardly remind this audience of the almost romantic history of some of the great discoveries which have been made in reference to the nature and history of living things during the past century. The microscope, which was a drawing-room toy a hundred years ago, has, in the hands of devoted and gifted students of nature, been the means of giving us knowledge which, on the one hand, has saved thousands of surgical patients from terrible pain and death; and, on the other hand, has laid the foundation of that new philosophy with which the name of Darwin will be forever associated. When Ehrenberg, and, later, Dujardin, described and figured the various forms of *monas, vibrio, spirillum and bacterium* which their microscopes revealed to them, no one could predict that fifty years later these organisms would be recognized as the cause of that dangerous suppuration of wounds which so often defeated the beneficent efforts of the surgeon, and made an operation in a hospital ward as dangerous to the patient as residence in a plague-stricken city. Yet this is the result which the assiduous studies of the biologists, provided with laboratories and maintenance by Continental States, have in due time brought to light. . . . . The amount of death, not to speak of the suffering short of death, which the knowledge of bacteria, gained by the microscope, has thus averted, is incalculable. . . . One other case I may call to mind, in which knowledge of the presence of bacteria as the cause of disease has led to successful curative treatment. A not uncommon affliction is inflammation of the bladder, accompanied by ammoniacal decomposition of the urine. Microscopical investigation has shown that this ammoniacal decomposition is entirely due to the activity of a *bacterium*. Fortunately, this *bacterium* is at once killed by weak solutions of quinine, which can be injected into the bladder without causing any injury or irritation. This example appears to have great importance, because it is the fact that many kinds of bacteria are not killed by solutions of quinine, but require other and much more irritant poisons to destroy their life, which could not be injected into the bladder without causing disastrous effects. Since some bacteria are killed by one poison and some by another, it becomes a matter of keenest interest to find out all such poisons; and, possibly, among them may be some which can be applied so as to kill the bacteria which produce phthisis, erysipelas, glanders, anthrax, and other scourges of humanity, while not acting injuriously upon the body of the victim in which these infinitesimal parasites are doing their deadly work. In such ways as this, biology has turned the toy 'magnifying glass' of the last century into a savior of life and health."—*Royal Microscop. Jour.*

A Ready Method for the Detection of the Bacillus Tuberculosis.

BY M. B. HARTZELL, M. D.

SINCE Koch first announced the discovery of the bacillus tuberculosis, methods for its detection have multiplied rapidly. Most of these methods, however, are more or less complicated, are uncertain, and require too much time in their execution to be of use clinically.

On account of its simplicity, and of the short time required to execute it, I wish to add another to the many staining processes already in use. This process appears to me to possess decided advantages over all others with which I am acquainted: by means of it the sputa of patients who are supposed to be tuberculous can be easily and rapidly examined, and the bacilli are so deeply stained that if any are present in the specimen under examination they can not be overlooked, if ordinary care is used. The process is briefly as follows: A small quantity of sputum is spread as thinly and evenly as possible upon an ordinary glass slide; it is allowed to dry, which takes but a minute or two, and is then passed slowly several times through the flame of an alcohol lamp or Bunsen burner. One or two drops of the fuchsin solution, recommended by Gradle, and prepared as follows: carbolic acid, *m*xv; distilled water, f℥ss; dissolve, and add saturated alcoholic solution of fuchsin, f℥ss, are placed upon the sputum thus prepared, and allowed to remain from three to five minutes. The slide is now washed thoroughly with distilled water, to remove the excess of fuchsin, and the stained sputum completely decolorized by means of a saturated solution of oxalic acid. It is again thoroughly washed in distilled water, after the decolorization, and allowed to dry: it is now ready to be mounted in glycerine or balsam for examination. With a power of five hundred or six hundred diameters the bacilli will appear as brilliant red rods, no staining of the background being necessary.

In all other methods with which I am familiar, the decolorizing agent employed is dilute nitric acid; but this, besides being disagreeable to handle because of its corrosive and staining properties, is apt to remove the color from the bacilli too, unless great care is taken. Oxalic acid, however, seems to leave the dye untouched in them.

To render the process still clearer, the different steps may be arranged thus:

1st. Spread the sputum upon the slide, dry, and pass through the flame of the lamp.

2d. Stain with the fuchsin solution three to five minutes.

3d. Wash in distilled water.

4th. Decolorize with oxalic acid.

5th. Wash again thoroughly in distilled water, dry, and mount in glycerine or balsam.—*Phil. Med. Times.*

Gleanings.

The Pathology of Deaths from Burns.—The *Medical Record* says that Zulner has published more extended reports of the examinations made by him of the corpses of those who perished in the burning of the Ring Theater, in 1881. All the bodies, even those which exhibited no external marks of injury, were more or less covered with a thick layer of soot. The upper extremities were strongly abducted from the shoulder, the elbows were bent, and the forearms pronated, so that the backs of the hands lay near the face. A fighting attitude was thus simulated in some cases. This was due to shriveling, and consequent shortening of the muscular fibers, by the action of heat. The large cavities, and more especially that of the abdomen, were often burst, even in bodies not otherwise much injured, and the bowels protruded. In females, the tympanic state of the abdomen frequently simulated a state of pregnancy.

The blood showed every grade of consistency, from the normal, through the viscid state, up to a completely friable dry mass, in which last condition the blood-pigment was found to be in an insoluble state. Occasionally, the blood formed a dull lustrous mass in the uninjured heart and blood vessels. Examined spectroscopically, the blood always showed the bands of carbonic oxide-hæmoglobin, even in the case of bodies which had remained buried beneath rubbish for a month. In all the bodies which were incinerated, the heart was found in diastole, and rigidly distended with clotted blood. This sometimes gave rise to a suspicion of concentric hypertrophy; but the thin walls of the organ at once revealed the nature of the appearance.

The bones exhibited every stage of burning, from a simple combustion up to a complete calcination. The jaw was most firmly closed. The muscles, where the skin was unbroken, had a boiled appearance; but, where they were charred, the odor was that of smoked meat. The drying-up of the flesh, and its permeation by pyrogenous products, obviously retarded the advent of putrefaction. In the eye, the application of lower grades of temperature manifested itself as a turbidity of the cornea, and complete opacity of the lens, giving the appearance of cataract. The larynx, trachea and nostrils, were often filled with foreign material from the stomach, perhaps due to the vomiting excited by carbonic oxide. The urinary bladder was often full of urine, even when the abdomen had burst. Occasionally, where the bladder was empty of urine, it contained a gelatinous substance with embedded blood-corpuscles. This was found by E. Ludwig to consist of gelatine, probably derived from the connective tissue by the action of heat. Similar gelatinous masses were found in the uterus in some cases; and this organ was found to be very resistant to the action of heat.

SPINA BIFIDA TREATED BY INJECTION.—The following report, by Mr. N. Smith, of a case of spina bifida which had been cured by injection of iodine, is exceedingly interesting, proving, as it would seem to do, that an efficient closure of a deficiency in the vertebræ can be effected without encroachment on the spinal canal (*Lancet*, August 4, 1883): The child was born with a deficiency of the arches of the lowest lumbar and upper sacral vertebræ. The size of the tumor was in circumference at the base 8½ inches, from side to side over the tumor 5½ inches, from above downward 4½ inches. The tumor was fully distended, translucent, and presented an ulcerated surface in the center, secreting fluid. There was no appearance of large nerves in the sac. The tumor was punctured with a No. 3 trocar, low down upon one side, and two ounces of clear, straw-colored fluid were drawn off, until the tumor was diminished to half its original size. Forty minims of Dr. Morton's iodo-glycerine fluid were then injected, and the puncture was closed with collodion and plaster. The constitutional disturbance was severe for twenty-four hours, after which the tumor began to cicatrize, gradually shriveled up, and became like a piece of rough puckered leather. The operation was performed on the 5th of September, 1877, and in twenty-five days the tumor consisted only of rough thickened skin, which projected slightly beyond the surrounding surface. A part of the wall of the sac of about the size of a shilling remained apparently unaffected by the injection. In February, 1878, nearly six months after the operation, hydrocephalus made its appearance, and ran its course in two years, at the end of which time the child died.

Autopsy.—Externally, the remains of the tumor appeared as thickened and puckered skin, and resistant to the touch.

At the center there was a small patch, less in size than a shilling, of thinner skin, beneath which could be felt a small cavity. Upon dissection, the remnant of the tumor was found to consist of very dense fibrous cicatricial tissue, in the form of fibers and bands passing in all directions, and closely united together. The deficiency in the wall of the spinal canal was blocked up by this cicatricial material, but with difficulty a very small probe could be passed along a tortuous passage leading from the small cavity, already referred to, to the canal. The cicatricial tissue did not extend beyond the opening into the canal, but it formed a remarkably firm wall in place of the deficiency in the bone. No nerves could be discovered passing from the canal to the wall of the sac.

The Struggles of a Young Doctor.—A correspondent writes: "In the town in which I am located we have twelve physicians and enough patients to go around, and myself and two other young physicians could do well enough but for a crime the older ones have committed, and are still committing, against the well-being and dignity of the profession. They prescribe for fifty cents and furnish from one to six ounce mixtures, either giving themselves away or the medicine. They make calls for one dollar and furnish medicines most of the time. They trust patients, and continue to do business for them, when accounts have not been settled for years. Of course they abuse us, patronize us, consult with us (the last is the worst, for we are very apt to lose our patient when they do), and sometimes let us assist at a surgical operation. We, on the other hand, are obliged to collect our bills in order to live, and so have adopted the rule of sending bills every thirty days; we charge the same fees without furnishing the medicine, and can you blame us if we retort upon their stories of drug clerks' mistakes, by stating our belief that their drugs must be poor, and that the patient has often to take what the doctor has in his office, not what would be the best thing for him? Lest this locality should be recognized, I would say there is one honorable exception, one who charges as is his right, is kind and just to the young men, and honest with his patients. Can you wonder, Mr. Editor, that in this place the physician is not treated with the respect due to his profession? Here his standing is something between that of a man who labors and the village storekeeper."

Hints for Medical Students.—According to the *Boston Medical and Surgical Journal*, the following was found posted on the bulletin-board of the Harvard Medical School after the late examinations: "Dr. Edes wishes to call the attention of the graduating class to the following facts, which may be important to them and their patients. The doses referred to are NOT all from books which failed to receive 50 p. c. The following are too large doses: Half a grain of morphia, ten drops of Fowler's solution, to begin with; 10 c.c. of fl. ext. of conium; calomel, 7 grams; $\frac{1}{8}$ or $\frac{1}{4}$ grain of sulphate of atropia; 1 gram of sulphate of copper; half a gram of aloes every night, in habitual constipation. The following would make inconveniently large pills: One gram of pil. aloes et myrrh (no such pill made is officinal); 390 grams of sulphate of quinine and 130 grams of confection of roses made into six pills; 7 grams of calomel and 6 centigrams of blue mass. Pepsine and bismuth should not be given together. Lactopeptine is less efficient than pepsine. A teaspoonful of lime-water in a tumbler of milk does neither good nor harm. Calomel should not be used as an habitual cathartic (as was recommended in a good many books). Mercury alone can not conveniently be made an ingredient of an extemporaneous pill. Blue-pill does not contain calomel. An apothecary can not reasonably be expected to go out and kill a pig to make fresh pepsine for each prescription that comes in."

Malaria.—Col. G. H. Mendell, in the *Sanitary Engineer*, says: "In the great valley of California, over the whole of it, malaria prevails, often in most violent forms. It exists in uplands, remote from marshy districts, and I have known limited districts of upland adjacent to each other, where malaria prevailed in one while absent in the other.

"Some years ago, while engaged in a study of irrigation, then beginning to be applied on the dry plains of California, I was led to notice the level of standing water in wells, in reference to which there is a great difference in our interior planes. I soon noticed that shallow wells and malaria were frequent companions. Where the wells were seventy feet (or thereabouts) deep, there was freedom from malaria. Having noticed these coincidences, I afterward investigated their occurrence in a great many cases by inquiries of farmers with whom I had conversation. In one or two cases of exceptional malarial districts in the foot-hills, which are generally free from this pest, I found the water in the wells near the surface. I do not recall a single instance of shallow wells where the family were free from fevers, always intermittent, I believe. I therefore connect the presence of water near the surface of the ground with the existence of malaria. Whether it is due to the mere presence or to the fact that it is drank, or to both, I am unable to say."

EXCISION OF THE TONGUE.—Mr. G. E. Walker (Liverpool *Med.-Chir. Journal*, July, 1883) advocates the following method of excising the tongue: The lower lip being drawn upward with the left hand so as to put the skin under the jaw on the stretch, an incision is made along the edge of the bone from angle to angle, making a V-shaped flap with a rounded angle. This flap is then dissected back. A large-handled needle, armed with a loop of silk, is then thrust through the tissues, at the right end of the incision, into the mouth, appearing just in front of the anterior palatine arch. By this loop the bight of an *ecraseur* wire is drawn back through the hole. On the left side the same thing is repeated, then the tongue is well drawn forward, and the wire, connected with the *ecraseur*, rapidly tightened. The stump of the tongue should be secured to the jaw by a thread to prevent embarrassment in breathing. A knife is then thrust from below, just in front of the track of the needle, and with a sawing motion all the tissues of the floor of the mouth are separated from the bone. The whole of the parts are thus thrown open for examination. A single suture joins the apex of the flap to the skin, and the sides are left open for drainage.

POSTERIOR RHINOSCOPY.—Mr. W. J. Walsham (*Lancet*, July 28, 1883) describes the following easy method of posterior rhinoscopy: A piece of soft red rubber tubing, about one-eighth of an inch in diameter, is introduced into one nostril and pushed very gently along the floor of the nose till it presents just below the soft palate. It is then gently seized with a forceps, drawn out through the mouth, and loosely tied across the upper lip to the end protruding from the nose, the elastic tube being stretched just sufficiently to loop the soft palate upward and forward, and draw it well away from the posterior wall of the pharynx. The looping of the palate on one side is often sufficient, but a better view is obtained by passing a tube through the other nostril and looping up the soft palate of that side in the same way. The posterior nares and naso-pharynx can now be examined with the ordinary laryngeal mirror with great facility. The introduction of the tube causes hardly any annoyance to the patient. Care, however, should be taken in passing the tube to let it only just present below the soft palate, as, if it is pressed further, it may impinge upon the lower pharynx and produce a tickling sensation or a desire to vomit.

CHROMIC ACID.—Chromic acid in solution has been used by Mr. Henry T. Butlin (*Practr.*) in certain inflammatory states of the tongue, with good results. The strength of the solution used was ten grains to an ounce of water, which was painted over the parts with a camel's hair brush. Cases of chronic superficial glossitis caused by immoderate smoking and drinking, and frequently combined with syphilis improved under the use of the solution; but it was in secondary syphilitic ulcerations, mucous tubercles and condylomata, that its greatest benefit was seen, a few days sufficing for their cure. He says that the raised areas accompanying these affections rapidly subside, and the red areola surrounding them disappears, the mucous membrane returning to the normal color. He says there is no pain caused by the application, though at first there may be a little smarting.—*Weekly Med. Review.*

CORROSIVE SUBLIMATE IN GONORRHŒA.—Dr. Joseph McChesney, of Deming, New Mexico, contributes to the *Therapeutic Gazette*, for December, a report of a series of seven cases of gonorrhœa in which he employed by way of treatment, only a solution of corrosive sublimate, one grain to six ounces of water. The results are already very surprising. In several of these cases this injection was resorted to after a long and unsuccessful course with the ordinary remedies in such cases, and the result was uniform success. He resorts to these injections, which he gives once every four hours, after the subsidence of the acute stage. He is very confident that, properly applied, this solution will effect a cure of the gonorrhœa within from eight to ten days after it has been resorted to.

Editorial.

Medical Education.—The *St. Louis Medical and Surgical Journal*, of February, contains a lengthy editorial article entitled "A Surplus of Doctors." The article seems to have been inspired by an editorial on the same subject, which appeared recently in the *Chicago Tribune*, "demonstrating by indisputable facts and interesting figures the overcrowded condition of the profession, consequent mainly upon the improper preparation required by our too numerous medical colleges. A comparison of the English and American systems of education is given laudatory of the former and denunciatory of the latter, and the article concludes with suggestions of reform."

We also learn from our contemporary that in the *Tribune* "the statement is made, that though the learned professions are enormously disproportionate to the population, that of medicine is most remarkably so. The exact figures from the census report of 1880 show that the United States has within its borders 85,671 physicians and surgeons, or one doctor to every 600 inhabitants throughout the whole Union. The proportion is still smaller in the great Northwest, or one doctor to every 524 inhabitants. The figures show the country to be full of doctors. Indeed every cross-road where a grocery and blacksmith shop are located has the shingle of a medical man in plain view."

The *Journal* in its comments says that if the profession is, as it loudly proclaims, anxious to elevate its standards and secure to itself the respect, confidence, and admiration of which it should be deserving, let a work of reform be at once inaugurated and diligently pursued to an honorable conclusion. "As the unfortunate and deplorable condition of affairs is the result of its own folly, so the remedy is in its own hands. Through concert of action a complete reformation in the character of medical education is possible."

It is a very easy matter for an editor to sit in his sanctum, and, with pen in hand, demonstrate the causes of certain effects, especially when the demonstrations are of a kind that they can neither be proven or disproven, and to point out the remedy. How the unfortunate and deplorable condition of the profession is the result of its own folly we do not understand. In the first place, we do not believe that it is in a deplorable condition, although we freely admit that it is far from being what it should be. As a profession, that of medicine will compare very favorably with either that of the ministry or the law. There are very ignorant doctors, so there are very ignorant preachers and lawyers. We know quite as many clergymen who have not a common school education as we do members of the medical profession; and we can say the same as regards attorneys.

But admitting that there is a greater amount of ignorance in the medical profession than there should be, the profession itself is not exclusively to blame for it. The large part of the blame belongs to the community itself. It is for its benefit that the physician is made, and they who constitute it wish those who are on an equality with themselves. Educated communities seek for educated men to treat their diseases, and among such an illiterate doctor could obtain no standing. On the contrary, if a cultivated physician, learned in literature and science, would put up his sign among a class of people who could only talk about the price of land, and the prospects of the next year's crops, the chances would be that he would obtain but little patronage, especially if he should have a medical competitor as illiterate as those who compose the community. With such people the doctor who has but a single medical book in his library, which he but seldom refers to, and can give them quinine when they get the ague, and administer calomel and jalap on other occasions, will get pretty much all the practice, while our learned friend will be permitted to pursue his studies with only occasional interruptions.

The *Journal* refers to the laws which prevail among the manufacturing and mercantile classes, and yet seems not to be aware that the *quality* of an article is regulated by the demand just as much as the quantity. When the people demand an educated profession they will be forthcoming. If the American colleges can not provide them at such a time they will be imported.

The *Journal* thinks that through concert of action "a complete reformation of the character of the medical profession is possible; that the National Medical Association (we presume it means the American Medical Association) and the Association of Medical Colleges, representing respectively the profession at large and its educational institutions, could at their approaching sessions give expression to honest convictions upon this important subject, and, in turn, from every section of the country would resound earnest commendation of their action."

But how could there be concert of action? The West, South, and Southwest demand a class of physicians suited to their wants or wishes, while the East requires a class of quite a different character. The New England States especially will have only educated medical men. Such physicians are not wanted and could not obtain business in many parts of the country. Harvard Medical College, at Boston, continues to have large classes, although for several years it has advanced its requirements far beyond those of any other medical college of this country. Students before matriculating are examined as to their acquirements as respects a common school education, in history, mathematics, Latin, etc., and are required to attend three courses of lectures. Bellevue Medical College attempted not long ago to advance its requirements for graduation, and there was such a great falling off of students that it speedily restored the old conditions.

That the requirements are too loose in very many medical colleges of this country we readily admit. In fact, it is disgraceful the incompetent men that are turned out by many. Every year individuals are graduated who can scarcely write their names, and whose knowledge of medicine is less than that of many intelligent persons who lay no claim to be physicians. We know some facts in regard to matters of the kind occurring in this city which we intend to expose at a future time, for we consider it our duty to do so.

The *Journal* thinks that since, under our form of government, it is impossible to found and sustain a National Medical University, it could be agreed that each State of the Union may have one medical college and no more. This we regard as the most absurd of all the plans proposed. The States of New York, Pennsylvania and Ohio have each probably four times the population that many of the other States have. Besides they have advantages in the way of affording clinical instructions, not to mention other facilities, which many of the other States could probably never have, or if they ever did, it would only be after many years. To limit each of these three great States, including Missouri, the State of the *Journal*, and a number of other States, to only the same number of medical colleges which would be allowed to the smaller ones in population, would be simply ridiculous.

The obstacles in the way of medical colleges doing anything to elevate the standard of requirements are their great number; the fact that they are generally private institutions, owned by the faculties; and the custom of charging a large sum as a graduation fee. There are three or four times as many colleges as there should be, and very many are situated in places where the facilities for conducting them are meagre—where there are poor opportunities for clinical instruction and for studying practical anatomy. Such institutions can not afford the instruction that students should have to be qualified to treat diseases.

The excessive number of schools and their being owned by their faculties, without any endowment, causes very active competition among them, and bidding for students. Those that are unfavorably situated and afford inferior advantages are under the necessity not only of offering low fees, but also of diminishing the requirements of graduation as an inducement to obtain students; and the result of thus lessening the barriers and making entering the profession easy is to lead many to abandon the plow, the shoemaker bench, and the forge, for which pursuits they are adapted by nature, and take up the study of medicine. Low fees, however, could be tolerated if high attainments were exacted, both as 'regards preliminary education and medical knowledge; but very frequently, in our medical schools, cheapness and diminished requirements in length of time of study and in attainments go together.

We have always insisted that charging a fee for graduation is a fraud. If a student has paid his tuition fee, fulfilled the requirements, and passed a satisfactory examination, a diploma certifying to these facts, and conferring upon him the degree of M. D., belongs to him by right, and exacting money from him for it is dishonest. It is a bribe, in fact, to graduate him. As it is paid in advance, if the faculty decline to graduate a particular person for incompetency, they are under the necessity of taking $25 or $30 from their treasury and diminishing their funds that much. But there will be a gteat temptation to keep the money, and graduate the individual with but little regard to qualifications, if the income from tuition and diploma fees should not be sufficient to pay expenses, and the deficiency has to be made up from an assessment of the professors. There are but very few medical schools that realize from fees more than enough to pay expenses—the faculty receiving no remuneration. Many physicians may be willing to thus lecture for nothing for the supposed *eclat* attached to being a professor, but we do not believe that there are many who would be willing to pay for the privilege.

But as we have intimated, we believe that reform in medical education will have to come from the community. As it becomes educated, and will only be satisfied with physicians of a high order of attainments, many of the abuses which now exist will be corrected, and cheap colleges—not in fees only, but in everything,—as they will not be able to furnish the instruction required, will cease to exist.

CINCINNATI COLLEGE COMMENCEMENT.—The Commencement Exercises of the forty-ninth regular session of the Cincinnati College of Medicine and Surgery, held February 26, were attended by a large number of the friends of the institution. They were held in the amphitheater of the College, and began with a meeting of the Alumni in the morning. The following officers were elected by the Alumni: President, W. H. Haffner; Vice-Presidents, Drs. D. Scoville, P. F. Malley, W. H. Wichham, Mrs. E. A. Beauchamp and Dr. Booth; Treasurer, R. C. S. Reed; Secretary, B. F. Keller; Corresponding Secretary, W. F. Taylor.

At the afternoon session the annual address was delivered by Dr. F. W. Rose, who took for his subject the "History of the Science of Medicine in Ancient and Modern Times," in which the progress manifested by late developments was contrasted with the knowledge of the ancients in matters relating to medical science. It was an interesting discourse, illustrated by theories, facts and examples, and was highly commended by an appreciative audience, Dr. Rose being a remarkably pleasant speaker. The second paper was read by Dr. Louis Sauer on "The Honey of the Linden Tree and its Balsamic Properties in Mitigating the Effect of Nauseous Medicines." This paper was ably discussed by Drs. W. L. Amick, P. F. Maley, D. Wallingford, W. L. Amick, George B. Orr, Jackson and W. F. Taylor. The discussion closed by a presentation of interesting cases.

The commencement exercises proper took place in the evening. The graduates occupied the front seats.

The degrees of the College were conferred upon the following gentlemen, by Prof. G. W. Harper, A. M., President of the Board of Trustees, who made some excellent and appropriate remarks of an advisory nature:

W. P. Andrews, Michigan; Edith A. Beuchamp, Ohio; John Brill, Ohio; S. L. Brown, Illinois; E. E. Francis, Kentucky; J. L Jackson, Tennessee; Benj. B. Keller, Ohio; W. E. Mack, Pennsylvania; F. L. Powell, Michigan; W. D. Russell, Alabama; D. L. Rice, Pennsylvania; L. C. Reed, Michigan; W. F. L. Ramsey, Ohio; Otis S. Sharp, Pennsylvania; L. Thompson, Kentucky.

The valedictory address was delivered by Professor W. R. Amick, who took for his theme, "Sensation, the Voice of Nature," wherein the various relations of the nerves to the Brain were traced in a manner that showed a thorough knowledge of the subject.

A Popular Knowledge of Physiology.—The article below expresses our sentiments so well upon the subject of which it treats, that we have been led to copy it from the *Med. & Surg. Reporter*, in which it appears as an editorial. We have always advocated imparting to the people generally, an outline knowledge of anatomy, physiology, the principles of hygiene, and a knowledge of the causes and course of diseases. For the public to be kept in ignorance is to encourage quackery. Under such circumstances the charlatan can not be discriminated from the educated physician. It is very frequent to see persons who are generally intelligent, and educated, in fact, patronizing quacks, for the reason that, as regards medical matters, they are wofully ignorant. We really hope that the time is not far distant when the masses will be taught in not a few of the branches of medicine. Make our communities intelligent, and the standard of medical requirements on the part of physicians will soon be increased, and the profession elevated.

"From time to time it has been discussed whether it is well that the public should be instructed in physiology, and both sides of the subject have been maintained with much force and logic. It is a problem possessed of more than passing interest, for on the side of those who argue in the affirmative there are many strong points.

"The practical value of hygiene to the masses is really based upon an acquaintance with physiology by the masses.

"If the public do not know what nature intends their various organs to do, how can we expect the public to know how to so treat these organs that they can do what they are destined for?

"The age of blind faith has gone by, and the inquiring mind of man wants to know why he should be directed to do so and so.

"If we tell him that certain acts are detrimental to health, he wants to know why! and when we answer that they will derange the functions of certain organs, he wants to be informed as to the nature of these functions.

"It is true that a knowledge of the disastrous results of improper living does not, oftentimes, deter human nature from these errors, as the reckless lives of so many physicians so amply testify; yet with a knowledge of physiology they are prepared, of their own free will, to accept the consequences of their wrong-doings, and can not plead "ignorance of the law."

"A knowledge of the physiology of the sexual organs would prevent many a young girl from receiving a shock to her nervous system at the unexpected and startling flow of blood at the commencement of her menstrual life, that no doubt sometimes is the starting-point of some serious and perhaps irremediable nervous disease.

"It is true that physiology is taught in some schools; but it seems to us that it should form a very important portion of the education of every boy and girl.

"There is no necessity of going into the little details of what might be called minute physiology, but the gross or general physiology of our various organs and parts, the why each organ exists, and the purpose it ought to serve in the economy of life, are surely subjects with which every human being ought to have some considerable familiarity.

"Such knowledge need not and would not redound to the detriment of the physician; on the contrary, we imagine it would augment his practice; for did the people but know how insidious are the beginnings of disease (and this they would know, if they were familiar with physiology), they would much more eagerly and more frequently consult the physician, and would be much less apt to trust to the blind and unreasoning faith in the quack medicines, so prevalent now, principally on account of the mystery that surrounds everything pertaining to the science of medicine. Remove this mystery, let the public understand more about the approach and march of disease, and the rational methods of cure, and some of the millions that annually flow towards the patent medicine venders will find their way to the reputable and honorable physician."

GRAVE CHARGE AGAINST A MEDICAL COLLEGE.—Since the passage of the new law, the County Medical Society, through its Board of Censors, has undertaken the work of prosecuting persons illegally practicing—or, rather, pretending to practice—medicine. E. C. Ripley, Esq., attorney for the Board of Censors, states in his annual report:

"Thus it will be seen, by an examination of my report for last year and the present report, that this New York Eclectic College, within the last two years, notwithstanding the widely-published prosecutions of these men, their well-known characters, and the disgusting advertisements of some of them, has 'graduated' John Wesley Grindle, E. B Lighthill, James Bryan, Adam Claesson, and William A. Fuller, and solemnly declared them to be fit men to practice medicine. It should be the first duty of every reputable physician to make known this shameful state of facts, and join your Board in bringing to justice men who have been engaged in this unprofessional and disgraceful affair." "This man Bryan is one of the most notorious quacks in the city. He has been connected with numberless swindles, and published far and wide in the public journals, and occupies a prominent chapter in Anthony Comstock's book 'Frauds Exposed.' His arrest by us was published in the city papers; yet, in the face of these facts, and while he was under indictment awaiting trial, he registered as *another* of the 'graduates' of the New York Eclectic Medical College."

We understand that the Board has since taken steps to have the charter of this college rescinded, on the ground of having illegally granted diplomas. In evidence of the good work done by the Board, Mr. Ripley says:

"My observation prompts the remark that in no class of cases in the criminal courts is there as large a percentage of convictions as in the cases prosecuted by your Board; and the Board may well feel proud of this, another year's successful work, evidenced not alone by this report, but by the generous and merited support of the public press, and favorable public sentiment generally."—*Phil. Med. Times.*

MEDICAL COLLEGES OF CINCINNATI.—The medical colleges of Cincinnati will soon hold their Commencement exercises. We had expected, in this number of the NEWS, to have given accounts of the closing exercises of the *Miami Medical College* and the *Medical College of Ohio*, but we have found we can not do so without delaying the number longer than is desirable. The flood and other causes delayed us greatly in getting out the January issue, and we are anxious to get somewhat caught up.

We presume that our medical colleges will soon be getting ready their Announcements for their sessions of 1884 and 1885. The Announcement of one of them for 1883 and 1884 was remarkable for the number of gentlemen of the faculty who had A. M. attached to their names. Strangers would have supposed that it was a very learned faculty, indeed. It has been intimated to us that some of the gentlemen had gotten A. M. attached to their name by blundering of the printer. We have thought ourself that such might be the case with at least one or two, if not more. When an individual's name appears in print with the initials of a degree attached to it, who is known not to have ever attended a college in his life, and has hardly a common-school education, takes no interest in science of any kind, has never been known to write anything but a little gossip, it gives reason to suspect that a mistake has been made.

CRITICISING THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.—It seems that there has been a good many medical journals lately criticising the above-named journal, "which has exhibited in the past," so says the *Journal and Examiner*, "a number of blunders, some trivial, some gross enough to make one blush for the knowledge which the printers and proof-readers display of even the common words in our mother tongue."

But the *Journal and Examiner* is disposed to come to the assistance of the journal of the profession of the country, and we must say we sympathize in its efforts of defense. It says: "We call on every man in the country who would like to see the profession represented one day by a thoroughly independent publication of its own, fearless of every crusted abuse and incorruptible by the wealth of any corporation, to support this journal by financial and moral aid. It is in its first and weakest stage. It is as sure to become, in the future, what its best friends desire it should be, as the members of the profession it represents are sure to advance in the cultivation of science.

"We beg its critics to wait; and we beg, also, its patient editor to refrain from answering them. We look to see its columns present each day more of a national and less of a local character; and we hope to see it before long repeating the utterances of the very best men in every part of the country."

A STEAMSHIP COMPANY'S STINGINESS.—"On several occasions we have alluded to the unworthy treatment which steamship companies show now and then toward their medical officers. The latest and most flagrant instance that has come to our knowledge is that of the Red Star Line, sailing between Philadelphia and Antwerp, which compels the surgeons of its vessels to mess with the petty officers and second-class passengers. The opinion has been expressed that the medical officers of the line really have the matter in their own hands, and that they should not submit to such treatment. It seems to us, however, that they ought not to be left to cope alone with a powerful corporation, but that the profession at large should feel itself insulted through them, and should use its influence in every legitimate way to make the company feel that it has been too high-handed."

We quote the above from the New York *Medical Journal.* We hope that so long as the insult to the medical officers continues, that physicians going to Europe will not patronize the *Red Star Line;* and, furthermore, we hope that every physician will use his influence against the Line. The treatment of the medical officers is an insult to the whole profession.

WHEN NOT TO GIVE CHLOROFORM IN PARTURITION.—In a paper read by Dr. Savill before the East Surrey District of the Southeastern branch of the Medical Association, he lays down the following rules to be observed in not giving chloroform during labor:

1st. Never give it to a woman who has a tendency to flood during every confinement, or to those who have great relaxation of fibre, or weak, anæmic women in their eighth or tenth confinement, except for necessity.

2nd. Do not give it where labor is complicated with severe vomiting, or with acute heart or lung trouble, unless there is an imperative demand for it.

3rd. It should not be given to complete anæsthesia except for operations, convulsions or spasms of the cervix, and then one person should devote his entire attention to it.

4th. The inhalation should be stopped directly the pulse becomes weak or the respiration irregular.

5th. Do not give it if there be grounds to fear a fatty or enfeebled cardiac wall.

6th. In all cases where it has been given, there should be extra care to prevent post-partum hæmorrhage.—*The Obstetric Gazette.*

LONGEVITY IN A FASTING SPIDER.—On the fifteenth day of October, 1881, I enclosed a spider in a small paper box. From that day to the seventh day of May, 1882 (204 days), I carefully watched and daily inspected the prisoner, and can positively affirm that he partook of no food or water. The box in which he was confined was as clean and white as white paper could make it, and remained so while he continued to occupy it, except for the appearance of a few dark specks which I suppose to be the droppings of the prisoner. I carefully observed him every day, and sometimes two or three times in a day; and I was unable to detect any emaciation or symptoms of weakness, or even irritability of temper, while he lived. He always appeared as active, and looked as plump and healthy, as he did the day I dropped him into the box, until within three days of his death, when I first observed that when the box was tipped he would fall from his position.

WILLIAM JONES, M. D.

Newburgh, N. Y.

MEDICAL TIMES AND GAZETTE.—This excellent journal, published in London, England, can be subscribed for in this country through P. Blakiston, Son & Co., of Philadelphia, the agents in this country. It is one of the distinguished journals of the world, contributed to by the most distinguished medical men of Great Britain.

THE
CINCINNATI MEDICAL NEWS.

VOL. XVII. No. 195. Old Series. MARCH, 1884. VOL. XIII. No. 3. New Series.

Original Contributions.

Valedictory Address.

BY W. R. AMICK, M. D.,

Professor of Ophthalmology and Otology. Delivered at the Forty-ninth Commencement of the Cincinnati College of Medicine and Surgery.

IT has been said that "usage makes grammar;" then the question might naturally arise, What makes usage? We will say, custom. Custom also makes it proper upon occasions of this kind for some member of the faculty to make a few remarks to the Graduating Class. That honor has been conferred upon me by my colleagues. The conferring of the honor implied a duty. The discharge of this duty generally consists in making a few remarks upon some medical topic, or in giving advice. Then, by first promising you that we will not adhere very closely to our text, we will announce as our subject,

SENSATION, THE VOICE OF NATURE.

There may be recognized in the formation of the human body, the establishment of such laws as regulate, as well as partake of, the natural order and system which predominate in every member of an organic body. The organized structures of which the body is composed are so closely bound together, and relatively dependent upon each other, that they form grooves or ruts, in which the system seems to revolve or move.

Each organ in itself is dependent upon an inherent as well as an external principle, that can not be separated from and exist; but instead, in their dependence upon each other, form an unit. For instance, one division of the brain, entirely independent in appearance, could not exist and normally perform its function without the apparent assistance of all that sustains or contributes to the support and development of that organ.

In its cellular formation, every cell is as thoroughly individualized as if created for but one legitimate function in life, apparently independent of its environments; yet it has no power to perform its functions without the molecular action or operation of other portions of the brain. The brain can not be, nor can it be supposed that it is, confined in its operations to the cranium, for its substance is so universally distributed throughout the body, and so allied is every particle of that substance through the various ganglionic centers, which are again held together by the nerves, that it becomes impossible to limit the operations of this organ to the boundaries of the skull. The brain proper imparts its own nature so thoroughly to its own, wherever it may exist, is one of the reasons why man recognizes it as the dominant organ of the human body. It intelligently communicates sensation from its most remote boundaries, and responds to each call from the extremities in a manner that shall forever link together the periphery and the center.

Strive, as we may, to establish theories concerning the communication existing between one member of the body and another, we can not obliterate the facts which exist and produce such communication.

We can not consider that the growth or development of substance is simply the consequence or result of existence, but must rather acknowledge it as the product of that intelligence of which it is only a manifestation. It does not seem plausible that every nerve, fiber, membrane, muscle or cell, so intelligently performing their legitimate functions, and so directly communicating with each other, as if to regulate every revolution produced by thought, is but the simple result of existence, but it is the expression of that power which rules over, in and through, by which we are able to distinguish individual intelligence or thought, that it becomes impossible to destroy the conscious entity of each.

When we consider that even in nervous communication a longitudinal molecule connects directly with a corresponding atom in the nerve structure, each one acting independent of the other, as if endowed with an individualized power or force; that every nerve, every cell, every particle, which becomes a part of that great multitude forming the whole of but just the one organ, then we understand how it is possible that every globule of matter, which enters into the composition of man, is in itself a province of a vast empire, over and through which the human intelligence presides. All this is confined within the dominion of one organ in the human body; and when we consider the development and application of that law that governs not only the province of the mind, but of matter also, we must recognize the truth that every member of a human organization is as highly endowed as the brain.

Organically, every organ of the body submits to the mandate that has been issued, not only to govern in part, but the entire system as a perfect unit. We can not recognize an appeal made to only one of the special senses, through which the human intellect is reached, of any greater importance than if addressed to the most apparently useless member of the whole body.

Every organ revolving in its own orbit, encompassed and governed by its own law, performing its own work apparently in obedience to its own will, yet bows beneath the scepter of nature as dictated through sensation.

Duty or cause governs as well as limits the orbit and capacity, and becomes the controlling influence which, like the Archimedean lever, lifts to its greatest height the necessity to which each organ is applied. The fulcrum upon which this lever rests must be the senses, both special and common.

The will of man, although the dominant ruler over his nature, is subservient to physical law in its manifest duty and condition. Fortify one's self as he may, whether it be that the physical law be supreme or not, the intellectual can not sustain beyond the limit of bodily strength. Nevertheless, under circumstances which must be governed by environments alone—for instance, in the case of the insane man—all the surroundings may seem to contribute to his well-being; in the main, the organic structure of the brain remains unchanged, while some organ remotely situated from it, yet a tributary to its vitality, manifests a slight abnormality. From this we trace the effects that have been produced by legitimate causes, yet so obscure that it seems impossible to follow the relation between cause and effect. By such a slight action the whole organic structure becomes disarranged, and the intellectual manifestations become so estranged that we can hardly recognize the identity of the individual. This is the case throughout the whole organic body. If every organ acts in perfect harmony with every other organ, all moving onward and onward, each within its own orbit, becoming more and more beautifully adapted to the highest uses to which the human intellect can appropriate it, then, and not until then, can the legitimate use of the whole body, the *e pluribus unum* of the human being, make known to us their actual necessities, benefits and uses to which each and all can be applied.

This law, which applies to the individual, is as manifest and as comprehensive when applied to the universe. Beginning with the smallest form of animal life, we slowly ascend the stairway of development, and in this ascent we find that every particle of matter, however minute, is as necessary in its existence and place as the most luminous orb that brightens the earth.

We are too ready to acknowledge that which is most uncommon and excites the greatest wonder, while we are oblivious to the deepest meaning of that which is ever to be seen upon all sides in every-day life. If we but realized that in the tiniest flower, composed, as it is, of the same forms of life—containing cells, fibers and fluids, and much of that which enters into the composition of man—it might possibly reveal to us a new and higher dispensation than we had ever dreamed could be contained in so small a space. The law which governs it is as direct as that which gives utterance to thoughts clad in the most beautiful language.

Huxley says that at the same time that there is a fundamental resemblance which exists between the powers of the protoplasm in plants and in animals, they present a striking difference, in the fact that plants can manufacture fresh protoplasm out of mineral compounds, whereas animals are obliged to procure it ready-made, and hence, in the long run, are dependent upon plants.

"The existence of the matter of life depends on the pre-existence of certain compounds, viz: carbonic acid, water and ammonia. Withdraw any one of these three from the world, and all vital phenomena comes to an end. They are related to the protoplasm of the plant, as the protoplasm of the plant is to that of the animal. C., H., O. and N. are all lifeless bodies. Of these, C. and O. unite in certain proportions, and under certain conditions, and give rise to carbonic acid; H. and O. produce water; N. and H. give rise to ammonia. These new compounds, like the elementary bodies of which they are composed, are also lifeless. But when they are brought together under certain conditions, they give rise to the still more complex body, protoplasm, and this protoplasm exhibits the phenomena of life." This change is produced by the voice of nature being enthused into the protoplasm, by means of which it receives the power of living, acting, moving and developing.

In the lowest forms of life we do not have an uniformity of action, but one part may perform different functions at different periods. At one time a part may act as the digestive apparatus, and at another assume the function of the respiratory system. When we ascend in the scale of development, we find that the organs themselves become more complex, and each one has a legitimate office and can not act in any other manner.

Sensation may be brought under the careful scrutiny of the mind, and belongs to both the mental and physical organization. The nervous system becomes the medium by which it communicates with one portion of the body and the other, but more especially the means through which the mind develops into a regular order of transmission and expression of thought.

There is a voice which brings within its dominion all that is tangible, as well as intellectual, in its application to the general status or qualification of the human mind. The voice of nature is loud and clear concerning the communication between different organs, as the conveyance of sound, touch, physical contact, and the intelligent transmission of thought. There ever comes some fantastic or pleasant means by which different senses can be appealed to, and also by which they can be made to retain the impression or justify the result it has made.

Through the impressions made upon the physical body, experience becomes a most thorough model for instruction. With this we are enabled to guard self from danger, and remedy evils that are inflicted for want of experience. To every individual the simple experience of pain becomes a direct means by which they not only acquire lessons for the future, but, at the same time, fortify self against approaching danger. No instruction from outer evidence can possibly bring home conviction, but, at the same time, carries a reminder pointing where care should be exercised. The evidence which comes to man through experience, and that which he lives in accordance with the laws of his own being, renders him not only liable to observe and judge of others, but, at the same time, prepares him, or paves the way by which he may bring to his own consciousness the fruits of that experience.

Man is not nor can he be the adjuster of every ill, nor can he fully measure the extent of the benefits derived from association with persons and things by which he is surrounded. If we disobey nature and do not listen to the gentle admonition which she gives us when there has been an infringement made upon her territory by an enemy, but on the contrary, assist the intruder, then we can not expect to have "a sound mind in a healthy body."

Man brings to himself the fruits of his own experience, whether the results are acquired, or gained by contact with that by which he is surrounded. The evidence of his senses is that which appeals most direct to his own consciousness, and not only to his consciousness, but also to him, through the influence of his environments. Man is not nor can he be the adjuster of every ill, but he can recognize the benefits derived from a proper use of nature and her laws.

No one can receive that part of life's lesson which is produced by indulgences and excesses, and reap the reward, and then expect the experiences that are justly merited and rightly earned. Every experience one lives, whether it be of pain or pleasure, signifies development. Every lesson one acquires, whether from justice or injustice, develops wisdom, and clears away the debris of former experiences. Whether it be mental or physical, it comes to the heart and home of that one who ascertains the nearest relation which exists between the object and the light reflecting the shadow, for, with this light there is always enough of knowledge portrayed to bring its own reward to each who shall undertake the higher mission of making use of the lessons confined within its boundaries. There is no kinship between a condition of passivity, or inactivity, and one of earnest endeavor by which we may acquire the knowledge of experience.

Sufferings, which assail all portions of the human body, whether direct or indirect, occasion pain, which inflict not only upon the receiver the uncomfortable consciousness of having experienced trials which seem to have been the offspring of some inharmony, or perverted law, yet bring to us the necessity of exploring and divining the cause, in order that we and our fellows may escape a repetition of the unpleasant ordeal.

Sensation is the voice of nature demonstrating the receptivity of the consciousness of man, and also receives from the highest source, strength and sustenance with which to overcome or cast aside the fell destroyer, disease. It is the highway upon which the spirit of sympathy and affection passes from one mind to another.

That old sage of the "Atomic Theory," Leucippus, taught that sensation is our only source or faculty or knowledge. The principles which he propounded, admit the existence of no other mental attribute of a nature distinct from sensation. Parmenides opposed the theory of Leucippus, and believed that reason alone was capable of recognizing the truth, that impressions made on the senses were deceptive. He admits that for us to be able to reason correctly, there must be harmony of action between the various organs of the body.

This voice not only communicates between the outer and inner worlds, but intelligently conveys the impression from one sense to another the evidence of what is required to sustain and comfort that which is afflicted by the protection offered by organs that have not been visited by disease. It is the fruit of consciousness, or conscious communication. It is the power which conveys the light from without, to the mind within. It is the tablet upon which is written human sympathy and strength. It is the mirror upon which is reflected the imagery of the wisdom of nature; upon which man in his higher estate depends. It is the intelligent means by which man communicates with man, upon the highest basis of intelligence, both by impression and suggestion.

It is practical, it is also theoretical, it is material, it is spiritual, it is divine, it is human, it is intellectual, it is ignorant, it is governed by environments, it is susceptible to cultivation or improvement, it is also capable of advancing until it carries man and all his associations up the loftier heights by which he reaches the threshold entering into the domain of light.

It is the enchantment by which the human soul is drawn from its seclusion, it is the power which attracts one human being to another, and that force which governs every emotion. It turns forward the wheels of progress by which the human intellect reveals its innermost wealth.

Sensation is the sands upon which the footprints of time are left; it is the hieroglyphics which translate the purest language, and which communicate the loftiest sentiments of the human soul. It speaks of pain and pleasure, sorrow and joy, affection, aye, love, distrust, confidence, faith, hope, and all that is for and against truth, for it is the covering of the human intelligence, it is the highest appeal of nature. It controls every nerve, every ligament, every cell, every portion of the human body and mind.

Sensation is the instrument attuned of nature, upon which the muses produce such sweet harmony that we are saturated with a feeling of contented repose, and imagine ourselves translated to an utopia. It is touched by the fires of humanity, until its music reverberates through the corridors of that celestial abiding place, and awakens there the peans of praise which uplifts and strengthens the weak and weary, encourages the feeble and distressed, and speaks in tones of heavenly music words of cheer and comfort to those who, through sickness and misfortune, think that life has become a burden. It is the link by which the Here, and There, are bound together, and the altar upon which the beacon lights of nature are ever burning.

Sensation is the voice of nature speaking throughout the entire universe in tones of unmistakable gladness, and can not be mistaken for aught but that which gives strength, health, life, intelligence, sympathy and comfort. It is the caloric and sunshine which warms and illuminates the earth.

Members of the graduating class, with the close of the exercises this evening, the relations which have existed between us, cease. We are no longer teacher and pupil, but we stand upon an equal footing. But a short time ago, you sat here upon these benches and longingly looked forward to the time when you would receive your diplomas. There was a perturbation in your minds which produced an agitation in the thought centres. You were aware that the result would depend upon the modification of this agitation by the intellect. That the result has been satisfactory is auto-evident.

Then we say that the time has arrived for us to separate. The ties which have existed between us must now be broken. You go out to battle with the world, yet you do not go unprepared. You have not finished your education, on the contrary, you have simply commenced it.

Then if you expect to climb the heights of progress, you must not sit idly at the foot of the hill. If you expect to carve your name high on the rock of science, you must hew your own way to its summit. If you expect to leave lasting footprints, you must plant them in the rock, for if you place them in the sand, the flow and ebb of time will obliterate them. If you expect to receive the full benefit of the light, then you must not remain in the shadow.

Remember that the world is simply a large community, that a community is a collection of individuals, and that the moral attitude of the individuals makes the reputation of the community. The medical profession is no exception. Its position is high; its motives are noble; its cause is just; and its aim, to relieve suffering humanity. Upon you then devolves a certain share of responsibility, and it is your duty to yourselves, as well as to your *alma mater*, to do your part well.

In this great drama of life, we can not all be Alexanders or Napoleons, but each must act in the sphere allotted to him.

On the morrow you will go forth to take your respective places in the vineyard. Your mission is to soothe the aching brow, and give comfort to the sick and distressed. Ever remember that gentleness, politeness and good deportment are the visible signs by which the true physician becomes known.

Behind you lie the forests and mountains, before you the valleys and the plains. Toward the latter you have been journeying for lo, these many months. To-night we open wide the door, and as you pass into this grand field to labor, we bid you God-speed. And we hope, that by combining honesty, integrity and industry, you will weave for yourselves a crown of jewels, so pure and so clear, that its lustre shall never wane. Then, when the curtain has been rung down on the last act, and you have passed into the confines of the boundless unknown, may the splendor of that crown be undimmed, even by the brightness of eternity itself.

Eye Symptoms and Conditions in Bright's Disease.

Read before the Philadelphia Connty Medical Society, December 19, 1883.
Reported for CINCINNATI MEDICAL NEWS.

BY WM. S. LITTLE, M. D.

AMONG nine hundred and eleven cases of Bright's disease reported by different observers, changes in the retina have been observed to be associated with the kidney affection, in one hundred and eighty-five of these recorded cases; these statistics show that twenty per cent. of the cases of Bright's disease have internal eye symptoms. The statistics have varied with the several observers; the lowest average exhibiting retinitis present in 11·46 per cent., the highest in 30·15 per cent. of the cases of Bright's disease. A more exact and larger average than 20 per cent. can only be derived from a study of a larger number of cases of Bright's disease with retinitis than have as yet been recorded. The known average of 20 per cent. is sufficient to stimulate observation, and enable us to include eye symptoms among the other various manifestations of the disease under consideration, as they are exhibited by symptoms arising in other important organs and tissues of the body. The recognition of Bright's disease from lesions in the eye, in a case already diagnosed from symptoms in other organs, is not of so much importance for diagnosis, as it is a help in forming a prognosis; nor does the condition existing in the eye demand the therapeutics of special medicine.

A sufficient number of cases, however, are seen in an ophthalmic hospital, having no other symptom of Bright's disease apparent than impaired vision, which the ophthalmoscope shows is due to changes in the retina or of the nerve from disease of the kidney, or it is revealed in cases where vision is good, other ocular conditions being treated, so that in this class of cases the recognition of the lesion becomes important as a means of diagnosis.

The opthalmic physician will diagnose Bright's disease by means of the opthalmoscope, almost as frequently among the cases he is called to treat, as the lesion will be found to exist in cases where the eye is thus examined, for additional evidence in already diagnosed cases.

As a pathological change can be seen in the eye-ground during life, as can not be so well viewed in other parts of the body, the observation of the lesion associated with Bright's disease, or of other diseases, as they are exhibited in the eye, are very interesting and instructive.

Externally, the puffy lower lid is the only symptom, and before Bright's time, it was the first evidence of a more general anasarca, and it was looked upon as a symptom of dropsy, before the kidney was known to be the organ producing the condition. In very rare cases exophthalmus occurs from hemorrhage into the capsule of Tenon, due to the breaking down of the orbital vessels or an excess of serum in the orbit.

With dropsy following scarlet fever, as well as that accompanying the act of gestation and the puerpural state in women, some internal affection of the eye, impairing vision, was known to exist, the same as was later known to be present in dropsy associated with kidney disease, from other causes, in both sexes alike.

Prior to the use of the opthalmoscope, and even before Bright had connected the lesion in the kidney with dropsy, had amblyopia, or even total blindness been a symptom of dropsy accepted by the profession. In 1836, Bright observed amaurosis to occur early in kidney disease, and to be a pronounced symptom, in some cases, fatal brain complication soon following. Landouzy, in 1849, found albuminuria present in these cases of amaurosis, Türck, in 1850, observed fatty degeneration in the retina and this was corroborated later by Virchow and Heymann. Changes in the choroid as well as in the retina were recognized by Müller in 1857.

The vitreous becomes involved from hemorrhages of the retinal or choroidal vessels, detachment of the retina sometimes occurring; cataract may result, and a general disorganization of the eyeball follow. The contents of the orbit may be involved as already described.

Helmholtz's invention of the opthalmoscope afforded a means of recognizing the internal parts of the eye; in this disease it was of great value, revealing a picture, to supplant such a vague term as amaurosis. General medicine has derived a large share of benefit from what the opthalmoscope enables us to see in an eye affected with general disease; the decided and brilliant picture that was presented to view, due to kidney trouble, has perhaps done more to advance the use of the instrument than the study of any lesion in the eye limited to it alone, or in any lesion that co-exists with general disease. In 1856, Heymann made the first observation of the lesion with the instrument, and in 1859, Leibrich presented in a colored lithograph the characteristic picture of retinitis albumenurica, now so familiar; since then the Atlases of Mauthner, Jaeger, Albutt and Magnus have shown the picture of the lesion in the retina, and optic nerve in all its phases. Mr. Hulke, of London, in 1866, found neuroretinitis present in the disease. Leber's article in Handbuch der gesammten Augenheilkunde, v. 2, 572, gives an elaborate account of retinitis albuminurica or nephritica; nor must we be forgetful of the valuable article on "Retinitis in Bright's Disease and Diabetes," by Prof. W. Norris, in the work on "Bright's Disease and Diabetes," by Prof. James Tyson.

Retinitis, generally symmetrical, if not always so, appears in all forms of kidney disease, while it is principally associated with the chronic disease of the cirrhotic kidney. Even though symmetrical, its presence is not always known to the patient; especially is this so, as long as the region of the macula lutea in the retina is not affected, so as to produce a central scotoma; lesions near the nerve and peripheral parts of the retina are not so productive of recognizable scotoma in the field of vision. These cases do not have the restricted visual field and rarely loss of color sense that belong to optic nerve and brain troubles or contracted field of glaucoma. The symptoms may correspond to those of retinitis from any other cause; flashes of light, color sensations, dread of light, impaired vision, to total blindness.

The opthalmoscopic examination may only reveal the lesion, the patient being ignorant of it, and not observing the gradual change; such a case I saw recently, the macula not involved, but very rude lesions elsewhere; the case was chronic, and in the last stages of the disease, with a fatal prognosis. The picture of this form of retinitis is a decided one as a rule; when the changes are slight, it is uniform; though at times a differential diagnosis is required from the conditions of the optic nerve and retina due to intracranial disease or to pernicious anæmia.

While the lesions occur generally near the optic nerve and to the temporal side, the nerve itself is not implicated to the degree that it might be expected from the picture it represents; the separate spots in the retina finally coalesce, approaching the disc, and involving it; in other cases they surround the region of the fovea centralis, and are much smaller. They may occur anywhere in the retina, varying in size; the shape is somewhat quadrilateral, but may vary as they progress; they present a white appearance. The tissue near the disc and the disc itself appear striated; spots of hemorrhage are found from rupture of the retina or choroidal vessels, opacities in the vitreous are seen. The state of pigmentation is the latest. In chronic cases the color of the fundus is peculiarly yellow, and the character of the picture is at times very much like the neuro-retinitis of brain disease or pernicious anæmia.

The changes result from hyperæmia and infiltration of the tissue, fatty degeneration and atrophy producing changes in the blood-vessels with hemorrhage; a fatty deposit in the retinal tissue, the fibres of the retina become sclerosed and pigmentation follows.

The optic nerve is not seriously involved, though gray degeneration may exist, and numerous amyloid bodies may be seen with the microscope. The retina does not always present all the stages described; the kidney disease being amenable to treatment, the retina may not undergo any further change; where it is chronic, a like progression ensues in the retina. Marked lesions at times disappear, leaving only a slight trace. The hemorrhagic state is more severe, the sight not only being lost, but the patient's life endangered.

During gestation the same picture exists, the optic nerve may be more seriously involved. A case recently seen, and having uræmic symptoms, being unconscious two weeks prior to the delivery of the child, it being born dead; had complete atrophy of one optic nerve with retinal lesions extensive; the other nerve partially affected and slight retinal changes, patient almost entirely blind. In another case, with convulsions, only slight changes in the eye near the fovea. In succeeding pregnancies, the conditions may arise again, producing more serious changes in the retina.

The prognosis, as far as the vision is concerned, is serious, when the region of the yellow spot is encroached upon, and yet fair vision may remain after subsidence of the disease.

Can a prognosis as to the duration of the disease or to its fatality be derived from the eye symptoms? Only in the chronic stages of the disease, when retinal hemorrhages are extensive and repeated, the heart being diseased. Traube considered the heart the immediate cause of these retinal hemorrhages; but they exist in cases without heart trouble, and in other diseases of the system, and in intraocular conditions. Brain symptoms soon follow in these severe types of retinitis, in chronic kidney disease a general hemorrhage condition being developed, or uræmia may ensue. In the acute forms of Bright's disease no prognosis of any value can be formed from the eye symptoms, though severe.

As to treatment of the eye in this disease; what renders the disease of the kidney controllable, is only of advantage to the retina; leeching may be useful if the patient is not too anæmic. For the vitreous opacities, in cases where the disease is under control and the acute condition of the eye abated, electricity is of considerable value, much more so than any plan of medication.

The microscope shows a sclerosis of the retinal fibres, the walls of the blood-vessels degenerated, fatty deposits along the fibres and in the layers of the retina, also in places a pigmentation; the choroidal vessels are implicated as well.

Uræmic amaurosis is rare, Wagner finding one case in one hundred and fifty-three of Bright's disease. Graeffe found two cases in thirty-two cases of albuminuric retinitis; it presents no retinal change that is recognizable.

As yet we can not answer why the retinal changes occur with disease of the kidney. Does the structure of the retina and its proximity to a highly vascular tissue account for it?

DISCUSSION ON EYE SYMPTOMS IN BRIGHT'S DISEASE.

Dr. Albert G. Heyl: I desire to attract attention to the relation which exists between the intraocular phenomena observed in Bright's disease and the anatomical arrangement of the intraocular arteries. The latter are divisible into certain areas; thus we have one area composed of the arterial circle of Zinn which supplies the optic papilla; another formed by the arteria centralis retinæ which supplies the retina; another composed of short posterior ciliary arteries which supply the posterior half of the choroid; yet another composed of the long ciliary arteries which supply the iris and the anterior half of the choroid; the short anterior ciliary arteries also take part in the formation of this area. Now it is established that abnormal changes in connection with Bright's disease may exist primarily in each of these areas, with perhaps one exception to be mentioned directly. Thus the papillary area may be affected, and the papillitis will be found on examination, the choroid and retina and iris being unaffected. Again, the posterior choroidal area may be affected, and there will be found the phenomenon of subretinal œdema, and also in the choroid the white accumulations so well known in connection with Bright's disease. Both these forms are considered to be rare; perhaps they would be observed oftener were we more alert. A case reported by me (*Amer. Jour. Med. Science*, October, 1874) of retinal separation occurring in one eye, while simultaneously the other was affected by temporary amblyopia, probably belonged among the affections of the posterior choroidal area. Further, the retinal area may be affected, and the peculiar retinal appearances so well known are found. So far as I am aware, no separate affection of the irido-choroidal area had been described; there seems to be no reason why it should not occur. Of course there are many cases in which the areal lesions exist together, but they are to be looked upon as the result of one common cause, not as the result of a morbid process starting in one area and gradually implicating the others.

In referring to the snow-like patches of the fundus, commonly looked upon as the characteristic intraocular appearance of Bright's disease, I think that to a certain extent they are to be looked upon as the remnants of intraocular hemorrhage. While hemorrhagic clots formed of normal blood are absorbed without any whitish residuum being left, the case is different where the blood, as it circulates in the vessels, is in a morbid state. Thus in a case of pernicious anæmia, I have observed a number of round red hemorrhage spots with white centers. On examination ten days later the red coloring matter of the hemorrhages had largely disappeared, leaving as a residuum white masses. Some of these were speckled with red points, arranged in spindle-form like the hemorrhages of the retinal nerve-fibre layer. They were, however, simply the unabsorbed remnants of the round hemorrhage spots seen ten days before. So in morbus Brightii, the blood is in such a morbid condition that hemorrhage clots rapidly lose their red coloring by absorption, leaving behind a white residuum which may partially, at least, explain the white plaques seen with the opthalmoscope.

Correspondence.

Philadelphia Correspondence.

Editor CINCINNATI MEDICAL NEWS:

A man named McGinnis was recently hung in this city for the murder of his mother-in-law, and since there are some points in connection with the case that possess an interest to the profession, I will tell you about it. After his conviction, it was represented to the Governor of the State that he was insane, and a commission of experts was accordingly appointed to inquire into his mental condition. On this commission were two well-known psychologists, Dr. Preston Jones, for many years connected with the Pennsylvania Hospital for the Insane, better known as "Kirkbrides," and Dr. Charles K. Mills, who has attained quite an exalted reputation as an alienist. All of the committee, with one single exception, declared that in their opinion the man was insane and ought not to be hung; the minority report emanated from Dr. Thomas G. Morton, a surgeon of importance, but whose only claims as an expert in insanity are to be found in the fact that he married Dr. Kirkbride's daughter. Well, the Governor accepted and acted upon this report of one, and refusing to interfere, this miserable wretch was hung. The majority of the committee then made a post-mortem examination, when they found considerable evidence of brain disease, though, of course, we all know that the pathological evidences of mental alienation are not well established. Now the point is, that the Governor ignored the opinions of competent men and acted upon the single judgment of a man who is not recognized by his professional brethren as being unusually capable in this special branch. I leave you to form your own opinion.

The importance of always carrying about one's self a card with name and address upon it is well illustrated by a case that is now attracting considerable attention in this city. Two days ago, a young woman was seized with pulmonary hemorrhage in one of our churches, and soon became unconscious. She was carried into a house in the neighborhood, where she still lies unconscious, and no one has as yet been able to identify her; there is nothing about her person to give any clue as to who she is or where she lives.

The New York *Medical Record* is inclined to ridicule the idea that syphilis can be conveyed from one to another by the practice, so common among cigar-makers, of wetting the wrappers with saliva and biting the end of the cigar into shape; now, to me, this seems a very likely source of spread of the disease; for is it not very probable that some of these operatives have mucous patches in their mouths, and that the cigars may thus become impregnated and carry the disease to consumers? I confess that the danger seems real enough to me. The *Record* characterizes all such stories as sensational, as it did the warning which the London *Lancet* recently uttered about the conveyance of disease by books which had been in the rooms of those suffering from zymotic diseases, and, going back into circulating libraries, had again gone forth and carried with them the germs of disease. Such warnings are not sensationalism. I do not see just exactly how either danger can be absolutely averted, but I do believe that the public should be warned about them; for then we have fulfilled our duty as guardians of the public health, and place the responsibility for neglect where it rightly belongs, on the shoulders of those who refuse to heed our warnings. Dr. William Pepper (the Provost of the University of Pennsylvania) is a violent enemy of the weed, and he makes the assertion that no great smoker has ever performed much intellectual work after he has reached forty five years of age; he may be well enough and sound enough, both physically and mentally, but he seems to become disinclined for mental labor, and, losing ambition, seems content to rest on his oars. I can not subscribe to this broad statement, because I am familiar with instances that contradict it; still it is worth relating, since it is the opinion of a man who always thinks twice before he speaks once, and who has never been known to say anything foolish.

What a wonderful man, by the way, is this Dr. Pepper! He has plenty of professional enemies in this city, whose enmity is born of jealousy; yet, in spite of the obstacles which such ill-feeling in high quarters must necessarily throw in his path, he stands to-day, at forty years of age, in the very front rank of the American profession, and is the "Great Mogul" of the oldest medical college in the United States. Of course, he started out in life with the prestige of a great name, for his father was the Professor of the Theory and Practice of Medicine in the University of Pennsylvania; but how many others have so started in the race, with a bright future seemingly assured to them as a right of inheritance, yet fallen by the wayside. Ten years ago, Dr. Pepper's chief claim to distinction was that he was a "*quiz master;*" to-day it would tire your readers were I to enumerate the various positions of honor and trust, in all of which he is by no means a passive, but by all means a most active participant.

To him we are mainly indebted for the reform in the system of medical education in the University, and our city owes its magnificent University Hospital to his untiring energy; indeed, he is popularly known among his patients as the "begging doctor," for he never misses an opportunity to plead most successfully for his charges, and to such good purpose that he has, in two years, secured more than $500,000 for these institutions! To-day he is, as I have said, the Provost of, and the Professor of Clinical Medicine in the University, and has, besides, the largest consulting practice in the city. When that grand old man, Dr. Alfred Stillé, resigns this spring, Dr. Pepper will be elected to the position his father so ably filled so many years ago.

The University has now a department of Veterinary Medicine and Surgery, with Dr. Hindekoper, who was brought up in a stable, I might almost say, who loves nothing as he does a horse, and who has been studying for two years in Europe to fit himself for the position, as chief professor and Dean of the Faculty.

It is amusing to note the policy that is pursued by the governing bodies of our two great medical schools, and to see how diametrically opposed they both are. When, years ago, the Jefferson Medical College wanted a man to fill the Chair of Surgery, they went down to Kentucky and brought up the distinguished Gross. Did we not have capable men in Philadelphia? Of course we did, but Gross was a power in the Southwest, and the College was reaching out in all directions for students. Then came the courtly and polished Bartholow from your city, and now when Wallace gets old and feeble and vacates the Chair of Obstetrics, a host of good and able Philadelphians are clamorous for the place; such men as Albert Smith, Montgomery, Warder, and many others, any one of whom would acceptably fill the position, are passed by, and the trustees, elongating their elastic arms, reach forth over many hundred miles and capture the facetious and genial Parvin, whom I have heard sufficiently often to know that he pleases the students and will surely do that which is expected of him—he will attract and retain students. But why did he leave his home and large practice? Because the Jefferson College has about six hundred students, and since each student must pay each professor twenty dollars, the simplest kind of a sum in multiplication will show you that a chair in this College is worth about $12,000 to its happy possessor. Would you not resign the editorship of the Cincinnati MEDICAL NEWS to Dr. —— to accept a similar position? I trow yes. The Jefferson College has not adopted the graded course and still adheres to the fee system, which, in plain English, means the more students the more money to the professors; and which I interpret as also meaning that the easier the requirements for graduation, the more students. But to be just, I must say that the trustees of the Jefferson College have been wonderfully wise in their selections, and they certainly have to-day a magnificent set of men in their faculty.

Here you have a pen-picture of our cosmopolitan school; now to the conservative institution. If the University can find a suitable man in Philadelphia to fill any vacancy that may occur in her faculty, she never goes abroad to hunt for one. The fee system has been abolished, every chair is endowed, and each professor receives a salary ranging from $3,000 to $5,000, I believe. The money for tickets is paid in to the Secretary who issues the tickets, and the professors have nothing to do, directly, with the finances. Thus you see it makes no difference to the faculty how large or how small may be the class, nor how easy nor how hard may be the requirements for graduation; for they have nothing to do with the finances of the College. Each year's course of studies is mapped out for the students, who are divided into first, second and third course men, and they must follow the prescribed course, and not select their own studies as we used to do under the old regime. At the end of each year an examination must be passed. You can draw your own inferences as to which of the two plans is the best. The personnel of the Jefferson College is to-day, undoubtedly, the strongest in this country, and I doubt if any college in the world possesses a stronger faculty; but it is equally sure that the University system is more in accord with the requirements of "higher medical education." Is it any wonder, then, that with a celebrated liberal and a noted conservative school, to say nothing of the numerous less prominent institutions, that our city should hold such high rank as an educational center? I wanted to tell you something about our societies and hospitals, but since I have made this epistle so unconscionably long, I must defer this most interesting subject to a future letter. J. F. E.

March 10, 1884.

* * *

A DOCTOR who tried to practice medicine in Illinois with a diploma of a dead uncle, and then tried to get one of his own in Cincinnati without success, has finally got one.

Selections.

Extract of Malt.

The rapidly increasing demand for Extract of Malt, during the five years that it has been manufactured and offered to the medical profession in America, justifies the belief that in its production here, manufacturers are meeting a generally felt want. The Trommer Company says:

"Long experience in manufacturing Malt Extract has enabled us completely to overcome the many difficulties attending its manufacture in large quantity; and we positively assure the profession that our Extract of Malt is not only perfectly pure and reliable, but that it will keep for years, in any climate, without fermenting or moulding, and that its flavor actually improves by age. Our Extract is guaranteed to equal, in every respect, the best German make, while by avoiding the expense of importation, it is afforded at less than half the price of the foreign article.

"The Malt from which it is made, is obtained by carefully malting the very best quality of selected Toronto Canada Barley. The Extract is prepared by an *improved process*, which prevents injury to its properties or flavor by excess of heat. It represents the soluble constituents of Malt and Hops, viz: MALT SUGAR, DEXTRINE, DIASTASE, RESIN AND BITTER OF HOPS, PHOSPHATES OF LIME AND MAGNESIA, AND ALKALINE SALTS.

"Extract of Malt is officinal in the German Pharmacopœia, and by German medical writers is placed in the front rank, as a remedy possessing, in the highest degree, nutritive and restorative, combined with sedative, tonic, and alterative virtues. It is highly recommended by the medical faculty as a most efficient therapeutic agent for the restoration of feeble and exhausted constitutions. It is very nutritious, being rich in both muscle and fat producing material. No other article of the materia medica exerts so benign an influence upon the stomach digestion. This is undoubtedly due to the presence of a large proportion of Diastase (a substance identical with Ptyaline), which possesses the property of converting at least two thousand times its weight of starch into glucose, a product into which all the starch contained in the food must be changed, before it can normally enter the blood, and become a nutritious element. It is quite probable that imperfect digestion of starch is, not unfrequently, the starting point of certain diseased conditions, the most prominent earlier signs of which are disordered digestion and emaciation; and *malt liquors* have always been deemed a very efficacious means of remedying these very conditions. It is, however, well known that the fermentation to which it is necessary to subject the malt in the manufacture of these beverages, results in the formation of alcohol and carbonic acid, at the expense of a large proportion of the malt sugar, and that but little of the diastase withstands the process. But in the preparation of the Extract of Malt, the fermentative change does not occur. Indeed, the product would be spoiled if it did. It contains, therefore, in an unchanged condition, all the soluble constituents of malt, at the moment when the process of germination is arrested, These not only comprise the elements which go to form every kind of animal tissue, but it may be considered that these elements are, in a *nascent* state, not only organizable, but in some sort endowed with organizing power, and valuable, not so much for being essentially nutritious, as for their property of imparting to the food, with which they come in contact, increased digestibility and assimilative force.

"By many American physicians, and, among others, such foreign authorities (German, French and English) as *Niemeyer*, *Trousseau* and *Aitken*, Malt Extract is strongly recommended in the treatment of slow, irritable and difficult digestion, loss of appetite, sick headache, chronic diarrhœa, bronchitis, whooping-cough, and the catarrhal diseases of children, asthma, consumption, marasmus, the debility of females, and of the aged, in retarded convalescence from exhausting diseases, and, indeed, in almost all depressing maladies in which it has been found very sustaining and strengthening, and admirably adapted to building up and invigorating the system.

"A constant effect of the use of malt liquors is to increase the weight of the individual; and it is a striking fact, that those who habitually indulge in them are remarkably exempt from dyspeptic and pulmonary disorders. This can not be wholly due to the alcohol contained in this class of beverages, for there is really an increased liability among those who indulge, in the same manner, in the stronger alcoholic liquors, to gastric and pulmonary catarrhs. It must, therefore, chiefly depend upon that part of the malt which escapes conversion into alcohol and carbonic acid by fermentation, and which constitutes the nutritive element of malt liquors; nor would this alone be adequate, owing to its small quantity, but for the influence exerted upon digestion, and the energy which it imparts to assimilation.

"A single dose of our EXTRACT contains a larger quantity of the soluble constituents of malt than is found in a pint of the best ale, and, as it is prepared without being allowed to ferment, it is absolutely free from alcohol and other products of that process. This is considered especially desirable, because in many cases, particularly of gastric disease, the alcohol disagrees; and it may be wholly contra-indicated in a numerous class of cases in various morbid states; while in those instances where stimulants are required, they may be selected and administered in conjunction with the extract.

"In Germany, Malt Extract is much employed as a substitute for cod liver oil in the treatment of pulmonary consumption and other wasting diseases. In many instances its use is attended with excellent results, where the oil has failed. When the patient has taken the oil for a long time and become tired of it, or when it is no longer well borne, and also in the not unfrequent examples of those patients who can not take the oil, in whatever form presented, the extract may be confidently employed as a most efficient substitute.

"The nutritive and tonic properties of Extract of Malt and the salutary influence it exerts upon digestion and assimilation, render this agent a most admirable vehicle for the administration of many other remedies. For this purpose it is far superior to any of the "syrups," "elixirs," etc., now so much in vogue."

The EXTRACT OF MALT is put up in bottles containing 1½ lbs.

Acute Tonsillitis—Efficacy of the Compound Guaiac Gargle and of the Salicylate of Sodium.

SIMPLE INFLAMMATORY TONSILLITIS.

WHEN the principal objective symptoms consist in alteration of voice, and more or less redness and enlargement of one tonsil, with or without swelling of the glands at the angle of the jaw; there being little constitutional disturbance; the pain complained of being chiefly due to tension; the odynphagia which is usually present having manifested itself after the swelling of the gland has been noticed; the disease may be considered as a local affection.

The treatment adopted in such instances is a modification of the old and well-tried guaiac treatment; and consists in the employment as a gargle of a mixture long known throughout the West and Southwest under the name of "diphtheria mixture" and similar titles. This is known to the House Pharmacopæia as the *Gargarysma Guaiaci Composita.* Two fluid drachms each, of the ammoniated tincture of guaiac and the compound tincture of cinchona, are mixed with six fluid drachms of clarified honey, and shaken together until the sides of the containing vessel are well greased. A solution, consisting of eighty grains of chlorate of potassium, in sufficient water to make four fluid ounces, is then gradually added, the shaking being continued. If the apothecary is careful to make this preparation *secundem artem*, a not unpleasant mixture will be obtained. Without due care, however, the resin will be precipitated.

The patient is directed to gargle with this mixture freely and frequently, at intervals, varying from every half-hour to every three hours. In some instances, a saline cathartic is first administered. Should any of the guaic mixture be allowed, it is considered rather beneficial than otherwise, and its deglutition is sometimes recommended. Relief is usually experienced within a few hours, and recovery is prompt. Patients often return only to report their cure.

A young colored man had been attacked about eight hours before presenting himself at the clinic. When the writer saw him, there was great enlargement of the left tonsil, causing intense pain, and preventing deglutition of solids. The submaxillary gland and some of the cervical glands of the same side, were so much swollen that he was compelled to bend his head down toward the right shoulder. This patient reported himself well sixteen hours after coming under treatment. In this case, one ounce of Rochelle salts was first administered, and the compound guaiac gargle was directed to be used every two hours; but the relief following the first application was so grateful, that, in order to secure freedom from pain, the patient resorted to his medicine every half hour or so.

A little girl of seven years was brought to the clinic with unilateral folliculous tonsillitis, a few hours after she had begun to complain of pain in her throat, and was told to use the compound guaiac gargle at intervals of two hours. She did not return until a month later, June 16, when she was brought for treatment of an acute coryza. Her mother remarked: That medicine for her throat worked like a charm. She got worse for a few hours, but was well next morning."

Several similar cases of prompt relief could be cited in addition.

RHEUMATIC OR CONSTITUTIONAL TONSILLITIS.

When the first manifestation of the disease (excluding prodromata of headache, malaise, etc., which may or may not be present) is intense pain upon deglutition, causing great accumulation of saliva from unwillingness to swallow the excessive secretion; examination of fauces revealing perhaps a slight congestion—perhaps nothing more; more or less febrile reaction soon ensuing; the case may be assigned to the second or rheumatic group.

In these cases the odynphagia can not be explained by anything visible upon inspection. It is sometimes referred to a point representing the entrance into the œsophagus, and the examination with the laryngoscopic mirror will show some redness of the mucous membrane covering the arytenoid and supra-arytenoid cartilages and the pharyngeal surface of the cricoid cartileges. More or less soreness in the throat is constantly present; respiration often becoming painful, and phonation excessively so.

Some hours after, as the headache, pulse and temperature decline, one or both tonsils become enlarged; usually one consecutively to the other. The follicles are often distended with a caseous or sebaceous matter, which, under the microscope, is seen to consist of scattered (pavement) epithelial cells, some oil globules, and a mass of granular detritus, mingled with which are the spores and filaments of the *Leptothrix buccalis Oidium albicans*,* rod-bacilli and other fungi, as usually found in the secretions both of healthy and diseased tonsils. Some drops of blood from an inflamed tonsil, in one of these cases, showed great deformity of the red corpuscles, and unusual size and number of the white corpuscles, which were more than ordinarily granular; but no micrococci could be detected therein. A drop of blood from the finger of the same patient presented nothing abnormal.

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*Or something which I can not distinguish from it. I have seen this fungus in but one case, and, curiously enough, in this instance there was no aphthæ upon the mucous membrane covering the hard palate; though I have observed aphthous sores in several of these cases, and especially in the neighborhood of the incisor teeth.

Usually, as the pain in the throat subsides, muscular soreness occurs in the neck, back and loins, oftentimes in the sternocleido-mastoideus of the side corresponding with the tonsil first enlarging. Sometimes the soreness is experienced in one or more of the limbs; and some one of the larger joints may become more or less stiff, through neither red, swollen nor painful. Indeed, rheumatic or rheumatoid pains may flit from one portion of the body to another, during several days. In rare instances, transient albuminuria follows.

These cases are treated with salicylic acid or salicylate of sodium. The constipation usually present, due either to the disease or the remedy, is relieved with an appropriate saline cathartic.

The following formula makes a pleasant and efficient mixture:

℞.—Sodii salicylatis.	ʒij,
Ol. gaultheriæ	mj (vel. q. s.).
Liquoris ammonii citratis,	
Syrupi simplicis, ...	*aa* f ℥ii.—M.

S.—A tablespoonful every two hours.

As soon as the pains are relieved, the intervals are lengthened; or sacillyate of quinine or of cinchonidine is substituted, as a tonic, in five-grain doses, at intervals of four to six hours. Ringing in the ears (an occasional occurrence) calls for cessation of the sacilyates; when it usually passes away. In one case, where persistent, it was relieved by small doses of the infusion of digitalis. During the progress of the more acute symptoms, the patient's comfort may be promoted by allowing small lumps of ice to melt in the mouth from time to time, or even by use of the compound guaiac gargle.

Stiff-neck, the most annoying of the muscular complications, should it be severe, is relieved by faradization more promptly than by medication; the negative electrode being applied to the painful spot, or moved along the course of the sterno-cleido-mastoid muscle, the positive electrode being grasped in the hand of the same side. The same measure is, of course, applicable to other muscles.—*F. Solis Cohen.*

New York Academy of Medicine.

FORDYCE BARKER, M. D., LL. D., President, in the chair.

THE DIFFERENCES IN FORM OF THE ADULT HEAD.

DR. JOHN C. DALTON made some remarks upon this subject. He had lately become interested in a method of comparing the differences in the form of the adult human head by means of the paper patterns which hatters made in fitting hats. These patterns were made from models representing perfectly the circumferential outline of the head on a line with the hat-band. At one of the shops where he visited there were many of these patterns. It occurred to him, in looking them over, that there was a great variety in the forms presented, and he thought it might be an interesting way of comparing the forms of the adult head in persons mainly resident in the city, and all probably in comfortable circumstances, being able at least to employ a regular hatter. He had a quantity of these patterns, representing the shape of three hundred and sixty heads of customers as they appeared in succession. Looking at the diagrams [of which nine were shown] representing some of the most decided variations in outline in a general way, there were certain variations which would strike the observer. First of all, as to general shape, it could be divided into the variations with which all were probably acquainted—into long heads and round heads. There was a great deal of variation within certain limits in this respect. It was considered that in the medium form of head the width stood in relation to the length in about the proportion of 100 to 125. Practically, however, the mean length ranged between 120 and 130, and representing the width by 100, any head in which the length would be represented by a figure below 120 would be classed as a round head, and above 130 as a long head. Besides these peculiarities respecting width and length, there were also other peculiarities in form. In some cases the front portion of the head was narrower than the back portion, and *vice versa*. In some the entire outline was curvilinear, but in the great majority of cases there were angles and straight lines. Again, the two sides of the head were more or less unsymmetrical. In the first diagram there would be seen a very regular, symmetrical oval. In No. 2 there was a squaring of the frontal part of the head; the temples were flattened. This flattening of the temples existed in many cases, in some amounting almost to a depression, and such persons found difficulty in obtaining a well-fitting hat. In No. 3 the occiput was not so rounded. We now came to those which began to merge into the class of long heads. In one case the length was represented by 135, and in the longest of the lot the length was represented by 153. A general glance at the long head would give one the impression that the elongation consisted chiefly in a projection of the occiput. In the diagram most nearly round the length was represented by 108.

With regard to the want of regularity in the outline in the diagrams, it was present in all in greater or less degree. Although it might not be apparent to casual observation, it became very readily apparent when the diagram was folded in the median line along the long diameter. The edge of one-half of the paper diagram would be seen to project irregularly beyond the corresponding part of its fellow. In some cases the want of symmetry was very pronounced, while in others it was very slight; but Dr. Dalton had not been able to find any in which there was perfect symmetry. This want of symmetry was also one of the first peculiarities which struck the observer in making successive sections of healthy brains, and was present whether the sections were made vertically, horizontally, longitudinally, or crosswise, and it pertained to both the cerebrum and the cerebellum.

These observations raised a question of some practical interest. We were now very strongly inclined to believe that all parts of the brain had not one and the same function or mode of action; that there were certain nervous operations conducted by the gray matter in one part of the brain, and other, different nervous operations by the gray matter in another part, even of the cortical substance; so that we had begun to localize in many instances, in a pretty distinct way, certain particular functions in certain particular convolutions, as, for example, the relation of the motor zone in the region of the fissure of Rolando to certain muscular movements. It was also pretty well established that these differences in function and mode of operation were connected with differences in structure; that the gray matter in the anterior and posterior cerebral convolutions possessed regions of nerve cells of different volume and different shape; that whole regions differed from other whole regions in this respect. The same thing was true in the perceptive centres. Dr. Dalton then asked the question: Suppose one examined a brain of which the two sides were very different in form; did this not imply an exaggeration or a deficiency of certain parts of the brain that were endowed with special functions, and, consequently, differences in the operation of the nervous system? That would seem to be a very natural conclusion from these anatomical facts, and yet he was not at all sure that this conclusion was true. If we took a long brain and a round brain, and examined them, we should, in the first place, perhaps feel sure that the long brain had in it more gray matter in the cortical layer than the round brain had, because a sphere, of course, had a smaller extent of surface in proportion to its bulk than any other form of body. But it must be remembered that the brain did not present a perfectly smooth outline, but was convoluted, and the round brain therefore might have more extensive folding of the convolutions, and, consequently, present as great an amount of cortical gray matter as the long brain. Again, Dr. Dalton showed some skulls, one illustrating the long head and another the round head, and stated that the round head was higher, fuller in the coronal region, whereby it might gain in superficial area. He inferred that this difference in superficial outline at a given portion of two different brains, the one being flattened and the other rounded, did not indicate a deficiency in the former and an over-amount in the latter of special function; for in the former the corresponding convolutions might be shallow but wide, while in the latter they were deep and narrow. There might be the same physiological quality in a particular part of the gray substance, although its position might be varied and even shifted. These facts applied not only to differences in the shape of the brain in different individuals, but also to differences in shape in the two hemispheres of the same brain. As bearing upon this point, Dr. Dalton presented two Indian skulls, in which the form had been changed by the custom of compressing the yielding skull of the papoose, and compelling it while growing to assume a particular shape. It did not necessarily follow that in the one in which the forehead was greatly compressed there was none of that portion of the brain present devoted to intellect (assuming that the intellect had its seat in the anterior convolutions); or that in the other, compressed in the occipital region, there was no development of the posterior lobes and of the corresponding functions.

The President said that about fifteen years ago there was a good deal of discussion among obstetricians with regard to the influence of parturition in giving shape to the human head. He then instituted some investigations at Bellevue Hospital, carried out by the house staff, regarding the shape of the head at birth and for some time afterward. These investigations showed that the head of the infant, while being molded to pass through the pelvic canal, became flattened at portions where there was the greatest pressure, and filled out at portions where the resistance offered by the hard parts was least. For instance, if the occiput presented at the left ilio-pectineal eminence, and the sinciput at the right sacro-iliac synchondrosis, the corresponding diameter of the child's head would after birth be found to be shorter than the opposite diameter. By this means he had often been able to determine, when called in consultation within forty-eight hours after a child's birth, what had been the presentation. This peculiarity of shape gradually disappeared after the birth of the child. Whether it had more or less permanent influence he was unable to say There was another point which he hoped Dr. Dalton would be able in the future to develop. It related to the change in the form and size of the adult head at different periods of life. Dr. Barker felt quite sure that the head did continue to change even until late in life. This was noticeable in his own case, as was shown by the hatter's measurements during the past twenty-five years.

Dr. J. L. Corning had been very much interested in Dr. Dalton's remarks, inasmuch as he had given a most accurate method for determining the form of the head, and especially as he had suggested that function depended upon whether the brain structure was absolutely intact rather than upon whether it presented a particular form. His remarks would show, for example, that pressure applied to the anterior portion of the head would result not in obliteration or atrophy of the brain structure below, but rather in pushing those parts in such a manner that they found room and place elsewhere. This question had its bearings upon another question to which considerable attention and importance had been given by some, namely, with regard to the influence of asymmetry of the skull upon soundness of the mind. Dr. Corning was not disposed to attribute much importance to this peculiarity in cranial outline.

Dr. Webster thought the statement made by the President—that the adult head might change in form—would account for the fact that his hatter had been compelled to alter the pattern of his hat from time to time, although until this evening he had supposed this difference in size and outline was to be accounted for by a difference in the amount and distribution of the hair.

Dr. Dalton closed the discussion, and said the points brought out by the President were very interesting, and he was glad that attention had been called to them. He finished by saying that he thought we could not conclude certainly from asymmetry or a difference in external form of the adult head that there was a corresponding deficiency or enlargement of the brain underneath. It might exist, but it was uncertain.

Some Clinical Notes in Rectal Surgery.

BY J. M. MATHEWS, M. D., LOUISVILLE.

Professor of Surgical Pathology and Diseases of the Rectum, Kentucky
School of Medicine; Vice-President of the Mississippi Valley
Medical Association.

Case I.—During the late Exposition held in this city, a patient was brought to my office, having a card of introduction from Drs. Brady and Peters. He lived in Arkansas, and gave the following history: Had suffered with piles for a number of years. During their incipiency they had occasionally bled profusely. This symptom ceased after a short time, and no particular discomfort resulted from their existence save the slipping down at stool. They could be easily replaced, however, with the fingers. Was a bookkeeper by profession. Had come to Louisville to attend the Exposition, and in doing so was compelled to walk much more than he was accustomed to. During the day he was aware of the fact that his piles had come down, but supposed that they would either return of their own accord or be easily replaced as formerly. When he reached his hotel that night the trouble was greatly augmented, and he summoned a physician, who found him suffering from a strangulated condition of the tumors, which it was impossible to reduce by manipulation. He was then referred to me. I advised an immediate operation, not only for the purpose of reducing the prolapsus, but as a radical cure of the piles. He was put under chloroform, the sphincters thoroughly dilated, and each tumor secured by a tight ligature. The mass was then cut away. No opiate was given during the day or evening. He rested well that night, and the next morning did not complain of anything. I saw him again on the second day; condition about the same. I called to see him on the third morning, but was surprised to learn from the nurse that the patient had left the Infirmary upon the evening of the second day, and had not been seen since. Two days after I received a card from him dated at Cairo, Ill., saying that he was on his way home, and was "doing well." A letter from him of a more recent date assures me that he is entirely relieved of all rectal trouble, and did not suffer an untoward symptom.

Case 2.—Within an hour after finishing the above operation I was called to see a patient in one of the suburbs of Louisville, and found him suffering from the identical condition of Case 1. The mass could be partially reduced, but would not remain. Chloroform was administered by his physician, Dr. Cecil, and the same operation performed as in the first case, except the mass was not cut away. This patient suffered from strangury, which necessitated the use of the catheter for several days. He made a good recovery and went to his place of business in two weeks.

Case 3.—Mr. P., cashier, aged about 45, general health good until several weeks ago he was attacked with malarial fever, partaking of a bilious nature. About the end of the second week of his illness his piles became prolapsed from some internal irritation, and could not be returned, hence became strangulated. At this time I was asked to see him by his physician, Dr. Henderson. His physical condition was very poor; pulse ranging at about 125, and temperature from 102° to 102½°. Considering the fact that this strangulated condition of his hemorrhoids would rapidly increase his already irritable and feeble condition, it was decided to operate. Chloroform was administered by Dr. H., and I did the operation after the manner suggested by Allingham, viz: Cut well to the base of each tumor, and secure by a stout ligature. The sphincter muscle was dilated in this, as in the preceding cases. The patient was still kept under treatment for malarial fever, but it was noticeable that his pulse fell soon after the operation, and he soon made a good recovery.

CASE 4.—Judge ——, a jurist by profession. Had been confined to his bed for ten days or two weeks with inflamed piles. Proper treatment had been practiced but without allaying the inflammation. I was asked by his physician, Dr. Bolling, to see him in consultation. He made the following statement: About thirty years ago, while making the canvass for office in the country, he established a habit of constipation, by neglect. To overcome this he was advised to go regularly to stool and *force* an action. He construed this advice literally, and for many months was in the habit of straining violently at stool. To this he ascribes the beginning of his hemorroidal trouble. Leading a sedentary life the affection grew upon him. A great many times the tumors came down, but were not difficult to return. The present attack resisted all efforts at reduction. Upon examination he presented the following: Hanging down from the anus were three large, indurated, inflamed tumors, about the size of an ordinary walnut each. Upon close inspection I was persuaded that they did not belong *inside* the sphincter. On the contrary, they were tumors produced and grown by plastic infiltration into the tissues outside the rectum. They infringed upon the bowel proper, and hence were partly covered by mucous membrane. Their beginning was evidently that of an external pile, and by being subjected to many inflammatory attacks, during thirty years' existence, had assumed a. febroid condition. When not inflamed they were of course much lessened in size, and the patient made the mistake of supposing that they belonged inside the rectum. This accounted for the ease with which they descended after being placed inside. The case then properly was not one of prolapsed or strangulated piles, but one of inflamed fibroid tumors. Notwithstanding the inflamed condition, an operation was thought advisable. The anæsthetic being administered by Dr. B., I made a free incision to the base of each tumor, and placing a stout cord in the bottom of the cut, tied as tightly as could be drawn. Fully one-half of the entire mass was then cut away. The sphincters were not dilated in this case. Everything progressed favorably; the patient sat up on the seventh day, and on the eleventh went to his office in his carriage. Nothing further of note occurred except that upon the seventh day, when advised to move the bowels, it was found that the fæces would not pass because of the large accumulation and hardened condition. After free injections of warm water and oil it was accomplished.

CASE 5.—Upon the eighth day of the present month I received the following telegram from an interior town in Kentucky: "What will you charge to come here and operate for ulcer of the rectum?" I answered, and was summoned. Upon my arrival I found the patient in great distress. He stated that he had suffered from rectal trouble about one year. His symptoms had been vague; pain over the left buttock being mostly complained of. No blood had at any time been passed, but a discharge of about one teaspoonful of pus had taken place several weeks ago, during a speculum examination. The case was pronounced by his physicians rectal ulceration, and several caustic applications had been made. I advised a thorough examination under chloroform. Upon introducing my finger I felt a large opening, dorsally situated, that would admit the end of it. Divulsion of the sphincter was then done, when, to my astonishment, fully one pint of dark sanious pus escaped. Upon again introducing my finger it could be easily carried into the left iscchio-rectal fossa, which was but a large cavity, having bands of ligamentous appearance stretched across it. The entire fist could, with little force, have been pushed into it. A second fistulous track ran up the back over the coccyx and sacrum, and a third encroached upon the right buttock. I broke down all attachments and loculi, and made a counter opening in the left buttock to allow of the free escape of pus. A large tent was put through this opening and secured. The patient was suffering from extreme nervous prostration, and had lost much flesh. He was ordered upon the constructives, with a liberal diet, and the cavities syringed with diluted listerine. No further operative procedure was thought advisable at this time. When he has sufficiently recovered his strength the operation for fistula will be done.

REMARKS.

I have written of these few special cases that attention might be called to some *special* symptoms in each, and to the course of treatment pursued. Nearly all authors are agreed that piles should not be operated on during the *inflamed* state. Here is a recitation of four cases, wherein an operation was of imperative necessity, and each case progressed without an untoward symptom. Case 1 arose from the bed on the evening of the second day, and traveled several hundred miles by rail, and yet did not experience the least bad symptom. Case 3 was operated on during a severe attack of malarial fever, but the operation, instead of being a disadvantage, seemed to favor a more rapid recovery. Case 4 presented symptoms outside the usual run, and I am sure that he was enabled to go to his place of business much sooner by the operation than would have occurred had he trusted simply to quieting the condition by anti-phlogistic methods. Case 5 is mentioned more to show the mistakes that are sometimes made in rectal cases. This man had evidently retained this large amount of fœtid pus for many weeks, and it was doing serious damage to his constitution. It will be noticed that none of these cases complained of much pain *after* the operation. I believe the *sine qua non* in operating for hemorrhoids, to prevent pain, is to divulse the sphincter muscles. No unpleasant consequences follow, if it is properly done, and it saves the patient from very much pain. I am persuaded of this after operating several hundred times for hemorrhoidal trouble.

A Case of Puerperal Eclampsia.

BY L. B. TURNER, M. D., OGLETHORPE, GA.

On the evening of the 1st inst. I was called in great haste to see Emma J., who was about five and a half months advanced in her fourth pregnancy. Soon after my arrival my patient was seized with a fit of the hardest kind. Upon inquiry I learned that for several days prior to my being called in she had complained of vertigo, headache, was drowsy and generally indisposed. Feet and legs presented a dropsical appearance, and face puffed. I corded the arms, and took by guess twenty-five ounces of blood, and used chloroform inhalations, veratrum and morphine hypodermically. This lessened the severity of the convulsions to some extent, and as soon as I could get her to swallow I gave her podophilin in heroic doses every two hours until four doses were taken. I remained with the patient until the following morning when, by the use of ergot, she was delivered of a female child, dead probably five or six days. The convulsions in this case lasted at lengthened intervals for fifteen hours, but had only one light one after the birth of the child. During all this time the bowels had not responded to the medicine; I therefore ordered an enema of warm water, soap and common salt, which effectually moved the bowels. After this she gradually improved, until the end of the fourth day, she regained consciousness, and at the present writing the recovery is complete, with the exception of weakness, which time will remedy. This case was treated on the same general plan with several others. In conclusion I will say that a judicious use of the lancet, followed up by chloroform inhalations, hypodromite veratrum and morphine, with large doses of podophilin constitute the best method of treatment.

The Danger of Hypodermic Injections of Chloroform.

At the meeting of the Académie de Médecine on February 12th, M. Bouchard made a contribution of much practical interest. For some years he had observed that hypodermic injections of one cubic centimetre of chloroform in rabbits invariably produced death within about twenty-four hours. Much smaller injections, if repeated daily, also produced death eventually. He found that the same phenomenon occurred in dogs, though relatively larger doses were required. The same amount of chloroform inhaled or injected directly into the veins did not cause death.

Hence it was inferred that there is something particularly injurious in the hypodermic method of administering this drug.

All attempts, however, to discover how the chloroform produced these fatal results were without success. Albuminuria existed, but the histological examination of the kidneys showed only an intense congestion, and the blood did not contain any extraordinary accumulation of urea. M. Bouchard could not attribute death to uræmia. It appears to us that he lays too little stress upon the kidney lesion. His argument, however, is that animals to which chloroform is given by inhalation, develop albuminuria also, but do not die.

Death could not result from any reflex cause, because after section of the nerves of the legs and injection of the chloroform the animals die. Neither could it be due to any direct toxic effect, since intravenous injections did not prove fatal.

If we are to accept Bouchard's statements, therefore, there is something mysteriously fatal in the hypodermic method, so far as regards chloroform and certain lower animals.

The query arises whether this danger applies to man. It is not a very imminent one, but it is worth bearing in mind. The hypodermic administration in one day of an ounce of chloroform might be fatal. The continuous daily administration of one-fourth or even one-tenth of this dose might also prove fatal.

In harmony with Bouchard's conclusions are the similar experiments made by Colin of Alfort, with chloral.—*Med. Record.*

Distilled Water and Old Age.

The Psalmist David allowed seventy years as the natural duration of life, Pythagoras placed the limit at eighty, London's hygienic philosopher, Dr. Richardson, gives us ten more, while Flourens believed that man ought to live one hundred years.

There is no doubt that the physiological limit of human life has been slightly increased in the present century, and a hundred years later it may be found that old age comes on still more slowly and gently. For, with the increased uncertainty as to a future life, human energies are directing themselves with greater earnestness toward solving the problems of a more healthful and longer terrestrial existence.

The physiological chemist tells us that after the age of forty or forty-five, disassimilation gradually begins to exceed assimilation, and the structures of the body slowly waste. Muscle and nerve, which are the "master tissues," feel this first. The dynamic coefficient of both striped and unstriped muscle decreases after forty; the limbs become less supple, and the hollow viscera have a feebler expulsive force. The nervous system is less sensitive and plastic. Impulses travel between center and periphery with more difficulty. The individual loses spontaneity and becomes more automatic, more a creature of determined habits.

The lower tissues also undergo very marked and characteristic changes. The fibrin-factors of the blood increase in amount, the bones become dryer, the cartilages ossify, and the arteries especially become the seat of fatty degeneration and calcareous deposits.

Dr. Richardson announces that "his experiments show" that the colloidal matter (protoplasm?) of the body in old age contains less water, and that its particles are consequently more cohesive. It is true, at any rate, that the total amount of water in the body is less.

The essential fact as regards senile changes is that the metabolic function is weakened. Consequently the food, instead of being built up into good tissue, is oxidized into less complex substances. The protoplasm turns out fat instead of new protoplasm, the circulatory apparatus becomes weaker, the food stagnates, carbonic acid precipitates and earthly salts which it kept in solution are deposited.

Now certain recent philosophers have thought that, by preventing these fatty and calcareous changes, old age could be delayed. A Swiss physician, a few years ago, argued that lemons, *i. e.*, citric acid, would accomplish this end, and saw immortality in lemonade. More recently, a writer in *Knowledge*, Mr. W. O. Dawson, has presented a new *regimen sanitatis* which he claims is the most rational and certain means of retarding old age. It consists in avoiding all food rich in earthy salts, and in taking daily two or three tumblerfuls of distilled water with ten or fifteen drops of dilute phosphoric acid in each glassful. The food freest of earthy salts is: fruits, fish and poultry, young mutton and veal.

We can testify with Mr. Dawson that this kind of diet is harmless, but we are profoundly skeptical as to its efficiency.

Old age is part of the life history of the organism. There is that in the child at birth which determines very nearly when old age shall appear. Senility is a failure of nutrition. We can only delay its appearance by living a life which puts no undue strain on the organism, and by furnishing it with the easiest means of working. We can not expect to accomplish this end simply by cutting off certain deleterious supplies. If one would live long, let him especially take care of his "master tissues," the muscle and nerve, when young. This means rational exercise of body and a well-balanced cultivation of mind. Brain workers live long. Brain and muscle workers longer still. No one has given better advice for the retarding of old age than did Christopher Hufeland, a century ago. Let those who wish old age study him and put no trust in distilled water.—*Med. Record.*

Obstetrics.

BY ANDREW F. CURRIER, M.D.

THE COMBINED METHOD OF TURNING IN PLACENTA PRÆVIA.

Dr. C. Behm ("Ztschr. f. Geburtshülfe u. Gynäkologie," ix, 2) refers to the method which was described by Braxton Hicks in 1861, and to the literature of the subject, in addition to giving a somewhat extended notice of his own experience, involving fifty-three cases with this complication, in the clinic of Professor Gusserow, at Berlin. These cases are divided into two series, the first numbering thirteen, the second forty. Those in the first series were treated by the old method of version; thirty of those in the second by the combined method; the remaining ten required other procedures. The thirteen mothers gave birth to fourteen children, and the mortality was four for the mothers and ten for the children. As to the insertion of the placenta, in three cases it was marginal, in five lateral, and in five total or central. Of the forty cases in the second series, there were no deaths on the part of the mothers, but eight were the subjects of fever, and one suffered with hemorrhage on the seventh day of the puerperium. Of the forty children, nine were born alive, five of whom were mature, two premature, and two with vital defects. Of the thirty-one dead children, six were mature, eleven were premature, and fourteen had vital defects. Notwithstanding the small percentage of survivals on the part of the children, the author considers the results excellent, and would so consider them even had all the children been lost, when the peculiar conditions attending this complication are borne in mind.

The advantages of the combined method of turning are summed up in the avoidance of sepsis, which it insures, and also the limitation of the loss of blood, by means of the tamponade which is effected by the breech of the child. Turning having been accomplished, the authors differs with Spiegelberg, Fritsch, and others in their view that extraction should be as rapid as possible. In twenty-four of his cases in which he noted the interval between turning and extraction it varied between one-half hour and eleven hours, birth taking place in the largest number between two hours and two hours and a half after turning. In the interval the strength of the patient should be re-enforced, and stimulants are regarded with more favor for this purpose than any method of transfusion. As a means of preventing atonic post partum hemorrhages, this method of turning has answered perfectly in the author's experience, and no accidents of this nature occurred to him. The aphorism which he proposes for the treatment of placenta prævia cases is *haste with delay*—haste in performing combined turning, delay in extraction.

AXIS-TRACTION WITH THE OBSTETRIC FORCEPS.

Dr. J. F. Le Page ("British Medical Journal," Oct. 2, 1883) remarks upon the great diversity of opinion in regard to the proper use of the forceps among those, even, who have large experience and are capable of giving an intelligent opinion. A great number of eminent men are quoted, as well as their diverse opinions. The force which nature exercises in accomplishing delivery he declares is intermittent axis-propulsion, and during the intermissions the head of fœtus is adapted to the easiest diameters. The force is always applied in the same line—that of the spinal column. By using powerful leverage on the soft parts, or by forcibly dragging the head, without regard to diameters, through the pelvic canal, we are not acting on this line. If traction is to be exercised, it should be with an instrument which is capable of great freedom and range of movement, the movements being unrestricted and under the control of the operator. In some cases we should not forget that the office of the forceps is not that of a tractor or a lever, but that of a compressor. During the intervals of uterine contraction very gentle rotatory movements should be imparted to the head to aid its adjustment. If the foregoing statements are true, neither the straight nor the curved forceps accomplishes its desired end; therefore the author proposes a new forceps, which has a strong brim and perineal curve, and an adjustable lever. The handle is in a line parallel with that of the blades. It is practically a straight forceps, but, with the lever, traction can be made backward in the axis of the brim. With the lever and handle combined, flexion, rotation and extension may be assisted or altogether effected, and at the same time the line of traction is independent and can be continued throughout without any variation from the axis of the canal.

AXIS-TRACTION AND OSCILLATION WITH THE OBSTETRIC FORCEPS.

THE object of a note by Dr. Robert Barnes (*Ibid.*, Nov. 3, 1883) seems to be, in part at least, to correct a misunderstanding as to his views in regard to the necessity of traction. The statement, in his "Obstetric Operations," that "traction is hardly called for at all," he affirms applies only to a very limited class of cases, in which there exists no anatomical disproportion. [This would seem very much like a weakening on the part of Dr. Barnes with respect to the position which he has heretofore maintained.] He admits that progression is supplemented by traction, and that this, together with the normal movements of the fœtus, favors progression and adaptation, with the minimum waste and misdirection of force. As to oscillation-movement, he thinks that when this is very gentle, with the lock of the forceps as the fulcrum of the lever which is formed by each blade, there need be no fear of dangerous pressure upon the maternal soft parts. Slight oscillation will act as an aid to progression.—*N. Y. Med. Journal.*

A Case of Traumatic Tetanus.—Recovery.

Read before the St. Louis Medical Society, January 19, 1884.

BY D. M. BLOUNT, M. D., FARBER, MO.

GENTLEMEN of the St. Louis Medical Society: One of my greatest sacrifices in leaving St. Louis was in forfeiting the pleasure of meeting with you from week to week. I must return thanks for your kindness in electing me a corresponding member, and I take this opportunity for using my privilege as such, by presenting an account of a case of traumatic tetanus, which occurred recently in my practice. Mr. Austin, a section-hand on the railroad, while handling switch-ties, suffered the misfortune of having one of them fall upon the arch of the instep of his right foot. Upon pulling off his boot, which was of heavy leather, he detected nothing but a slight abrasion about the size of a silver quarter, which was immediately over the os scaphoides. The sense of pain felt upon the receipt of the injury was quickly followed by numbness of the foot. Being unable to replace his own boot, he took a rubber one belonging to a comrade, put it on and resumed work, continuing his employment for about an hour, until the close of the day. He then walked half a mile to his home, eat supper and did not complain of his foot hurting much until about 10 o'clock P. M., at which time he was seized with cramp in the calf of his leg. This was so severe and continuous that I was summoned. When I arrived at the house, about 10:20 o'clock, the muscles of the thigh were also implicated. The leg was partially flexed on the thigh, and the thigh ditto on the abdomen.

The man was crying out and groaning in agony, declaring he could feel the cramp creeping by stitches into his body. I immediately gave 20 m. of a solution of morphia sulphate, one grain to the drachm, that is one-third grain of morphia hypodermically. As there was no apparent effect produced in 20 minutes, I repeated the dose with the pleasure of seeing my patient's suffering diminish within the next quarter of an hour. The spasm relaxed and the patient passed into a somnolent condition, during the existence of which I examined the foot to see the extent of the injury. Found neither dislocation nor fracture ; there was the slight abrasion I have spoken of and but little swelling. Applied a volatile and stimulating liniment (more to convince the bystanders that I was doing something to cure the sprain than aught else) wrapped the foot in cotton batting, did it up in a bandage, and elevated it on a board running out from the gluteal fold. The patient came to with a start, a cry and a cramp, just as I had finished these arrangements. The cramp was so severe that I was obliged to use more morphia. I gave 10 m. with the effect of quieting him for few minutes. He soon however got worse, and cried so energetically for relief, that I gave a fourth injection, the last of 15 m. He then slept for half an hour, at the end of which time I left him, hoping the morphine given, one and one-twelfth grains, would enable him to pass the remainder of the night in ease. It was 12:30 o'clock when I left, two hours from the time I first saw him. At 1:30 A. M., I was called to his bed-side again, and took a bottle of Squib's chloroform with me. Found the patient as before, save that he complained of pain at his heart, and the flexors of his fingers, hands and arms were contracted. Spasm and pain yielded readily to inhalations of chloroform, the first deep inspiration affording relief. Complete subsidence of the spasm was followed by discontinuance of the anæsthetic for the period of three hours, during which time the spasm returned with increasing force and rapidity and at shorter intervals. After the cessation of the inhalations, until from about 4 o'clock, it became necessary to give the chloroform almost continuously and to the full surgical effect. Its discontinuance once was followed by such severe spasm of the heart, that respiration ceased for the space of perhaps a minute, and I feared my patient was immediately going to tread the "ever green shores" of which, in his moments of ease, he frequently spoke. At 4 o'clock, just prior to the severe spasm which warned me not to let up on the chloroform, I administered 30 grs. hydrate of chloral. At 4:30 I discontinued the administration of chloroform and my patient did not arouse for an hour thereafter. When he awoke he was calm. I immediately gave an additional 15 grs. of chloral and he was soon asleep again. Heavy walking, the slamming of a door, or, as happened, even the knocking over of a small vial in the sickroom, would cause him to start. Everything with us possible was done to keep quiet and, fortunately a slight rain deadened the noise of passing vehicles.

At 1:30 P. M., the day after receipt of the injury, Dr. Pinckney French, of Mexico, Mo., Surgeon for this branch of the C. & A. R. R., who had been telegraphed for the night before, in company with Dr. Reed, also of Mexico, saw the patient. Chloroform was administered and these gentlemen examined the foot, and concurred in my diagnosis of simple sprain followed by tetanoid convulsions. As the patient could not empty his bladder, Dr. French drew off the urine which was abundant and of normal or slightly augmented color. For the remainder of the day, chloral was administered in 15 grs. doses every four hours. Slight anorexia followed the administration of the morphia during the night, and vomiting succeeded the administration of chloroform at the last examination of the foot. At no time was the temperature changed or the pulse accelerated, although the volume of the latter was augmented when the patient was easy, the pulse feeling hard and incompressible during the paroxysms of pain. The intellect was clear throughout. Physically he was much exhausted, although a powerful man. At 7 o'clock A. M. he was aroused and partook of an eggnog, returning to sleep immediately thereafter without additional chloral. After that day the case recovered without medicine, save an evacuant and liniments. In remarking upon the case I would say: The spasms were tonic, continuous, until overcome by the remedies administered; had chloroform been at hand, I would not have given morphia at first and probably not at all; that I am of the opinion that chloral would not have relaxed the spasm had it been given at first, but that it continued the relaxation produced by the last administration of chloroform and thereby diminished the amount of chloroform necessary to be administered, the same as it does in obstetric practice. The use of chloral should therefore, I think, in similar cases be resorted to early.—*St. Louis Med. and Sur. Journal.*

Microscopy.

How to Look for Trichinæ.

BY FRANK L. JAMES, PH. D., M. D.

In view of the numerous publications on the subject of trichinæ which have appeared lately, the following hints on the practical examination of suspected meat may be of value to the profession. The parasite being of appreciable size, the magnifying power of the instrument used need not be high. In fact, much time is generally lost in this way—most observers using powers entirely disproportionate to the work in hand. A good one inch objective with an A or No. 1 eye-piece, giving 45 to 50 diameters, is all that is required. Indeed, for casual examination a two-inch objective is sufficient. This, with a B eye-piece, giving 30 diameters, enables the observer to focus deep and take in a wide field at once.

The meat should be prepared for examination as follows: Cut the sections, where possible, longitudinally with the muscle. Great thinness is not required, a good thickness being about one-hundreth of an inch. Place the cut sections in a watch glass and cover them with acetic acid, U. S. P. In a few minutes they will be quite transparent and may be removed from the acid directly to the slide, where a drop of glycerine is allowed to fall on them, a cover glass adjusted and they are ready for examination. I use as cover glass a thin piece of glass nearly the size of the slide, so that a number of sections may be examined at once.

When it is desired to mount the sections permanently, they may be left in glycerine or cleared by alcohol and oil of cloves, and mounted in balsam. Sections containing fatty spots or streaks should be mounted in balsam as they never show so well in glycerine. Whether balsam or glycerine is used it is a good idea to let the sections remain in glycerine under light pressure for a few days before mounting. I use for this purpose two slips of plate glass three inches square and a quarter of an inch thick. This makes a good compressorium for almost all objects requiring such treatment.—*St. Louis Med. and Surg. Journal.*

Constituents of Thames Mud.

Dr. Lionel S. Beale read a paper on this subject recently before the "Royal Microscopical Society." As regards diatoms, he says that more than one hundred different species are found in the Thames—some being peculiar to fresh water, some to salt water. The silicious skeletons of the valves of diatoms that have died, and multitudes of fragments of valves of every degree of disintegration, are found in Thames mud.

Of the diatoms met with in Thames mud, some are found in a living state, but the majority are not only dead, but they do not belong to the particular locality where their remains have been discovered. The silicious shells or valves of these organisms are very light, and are often transported long distances. Suspended in the moving water, many pass up and down the river, and probably form a part now of this bank, now of that.

As regards bacteria, he states he has found them to exist in multitudes in Thames water, and in connection with all the particles of organic matter held in suspension in the water, or which have subsided to the bottom, or have fallen on the leaves of plants or other objects which have prevented their further subsidence. Bacteria are so very minute that they may easily be passed over, unless a very thin stratum of the fluid which holds them in suspension be examined.

Though so small, they are probably bodies of the very highest importance in the disintegration of sewage compounds. The germs of these organisms are excessively minute, many being less than the $\frac{1}{100000}$ of an inch in diameter, whilst the smallest are probably not to be seen when amplified by the highest magnifying powers at our disposal. So very small are they, that they must grow for some time before they are of a size sufficient to be rendered visible by an objective which magnifies upwards of 5,000 diameters. Bacteria germs exist everywhere in countless multitude, not only in air and in water, and on the surface of every kind of matter, but in the interior of bodies living as well as non-living wherever fissures exist, and chinks are seldom absent through which germs so minute can pass. Not only are bacteria always found upon every part of the surface of all living beings, but they exist within the blood, and in the very substance of the tissues however distant from the external surface of the body, and however far from any direct communication with the outside air. In all animals and in all plants, at all temperatures consistent with life—in every part of the world—bacteria are living at this moment, and they have lived, and probably in the same way as they live now, in every period of the world's history from the earliest dawn of life. Soon after the death, and, in many instances, long before the death of a man or an animal has taken place, the bacteria germs, which have been dormant in the tissues and fluids, begin to grow and multiply enormously, so that in a very short time every part is fully pervaded with countless hosts, which soon stop all ordinary action and efface all characteristic structure. Then begins that long series of changes which ends at last in the formation of products of comparatively simple character and very stable nature.

Extremely minute division, continues Prof. Beale, of the organic matter of sewage, and its equable diffusion through a large volume of water in constant motion, are favorable to the conversion, by bacteria, of noxious matter into chemical compounds, which are inodorous and harmless, and which undergo but slight change, whether moist or dry, and which are usually at last disposed of by becoming the food of plants. In the case of sewage, this desirable change into innocuous compounds is rendered very slow in consequence of the matter not being spread out in a sufficiently thin layer to be quickly appropriated by the bacteria.

In the present state of knowledge, says Prof. B., it is not possible to explain precisely how these organisms act upon the offensive sewage matter, but it is probable that as they grow and multiply they actually feed upon and consume the noxious material. After living its life the bacterium dies, and the products arising from its decay and disintegration are harmless, indeed, as compared with the substances upon which it has fed, and which, for the most part, it is our great anxiety to be rid of. The matters resulting from the disintegration of bacteria, in turn become the food of plants.

Disintegration by bacteria begins in the living organism itself. There is no part of the alimentary canal, or of any of the ducts, tubes or cavities opening into it, in which multitudes of these organisms, growing and multiplying in countless millions, can not, and at all times, be found. It has undoubtedly been assumed by many observers that whenever bacteria are discovered in the cavities, tissues and organs of living animals, they have been introduced from without. But the assumptions and conclusions based upon it are erroneous, as any one who will make the investigation with due care may easily convince himself. In the cavity of the mouth they are always, and in all states of health in all animals, growing and multiplying excessively. Even in the interior of the cells of plants, cabbages, lettuces, watercresses, etc., as well as in the interstices of the inmost tissues of the higher animals and of man, they or their germs exist, and when the conditions become favorable, they grow and multiply in enormous numbers. Many of the bacteria present in the water and in the mud of the river have, no doubt, been derived from bacteria which existed in the excrementitious matter before it left the organism in which it was formed. These probably go on growing and multiplying in the organic matter while in the Thames, and are not the least important agents in its disintegration and ultimate resolution into harmless compounds.

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GELSEMIUM FOR AFTER-PAINS.—After-pains are sometimes exceedingly rebellious, hence our readers will be pleased to learn that Dr. Holt has used the fluid extract of gelsemium, in doses of a fraction of a drop, frequently repeated. In the case of a patient in whom opium was not tolerated, and where all other remedies had been tried, the relief from gelsemium was prompt and decided.—*Med. and Surg. Rep.*

Gleanings.

MAGNITUDE OF THE LIFE INSURANCE BUSINESS.—A paper read before the Philadelphia County Medical Society by Dr. James N. Stone, on "The Relations of Physicians to Life Insurance," presents some interesting statistics showing the immense expansion of that business in the last twenty or twenty-five years. In twenty-three years prior to 1883, the number of policies issued in the United States increased from 50,000, representing an insurance of $140,000,000, to 660,000, with an insurance of $1,600,000,000. During the year 1882 the thirty companies in the United States distributed $52,000,000, which is equal to nearly $150,000 for every day in the year including Sundays. It is within the memory of elderly people now living that the idea of insuring life had formerly a sacrilegious odor among professors of religion. Now it has become as legitimate a business as buying and selling real estate. Dr. Stone traces the relation of life insurance to the medical profession, for which he claims the principal merit of its existence and management. Many of the most valuable statistics have been elicited by it, and problems connected with the prospective duration of individual life have been solved with great accuracy. Especially has the value of inheritance as a factor in prognosis been investigated. We regret that our limited space prevents a more extended notice of the valuable paper of Dr. Stone, which should be read and studied by all medical examiners and professional men who are connected with the business of life insurance.

ARREST OF THREATENED MAMMARY ABSCESS.—James Braithwaite, M. D., Leeds, writes:—In cases of threatened mammary abscess, I have for many years, with very successful results, given three consecutive doses of ten grains of quinine at intervals of twelve hours, at the same time using the usual local application of the belladonna. The administration of quinine in these cases, although its anti-suppurative power is well known, is not practiced by any one with whom I have conversed, but I have myself found it so successful that I think it deserves to be in general use, especially as the disease is so painful and so exhausting to the system. The best cases for the treatment are those occurring during lactation, and it is less suitable immediately after labor. It is unsuitable if the bowels are confined and the tongue furred. There are some patients who do not bear such large doses of quinine, in which case a first dose of ten grains may be followed by two of five grains each. I originally saw this treatment recommended in a French medical journal, and claim therefore no originality.—*London Lancet.*

GLYCERINE IN FEVERS.—Dr. Mariano Semmola opposes the exhibition of the salicylates, phenic acid or alcohol in acute pyretic conditions, admitting the latter only in cases of great depression or threatening paralysis of the heart. He thinks that he has found in glycerine a substance which may be advantageously substituted for these remedies. The following is the formula used by him:

℞.	Glycerinæ,	℥i.
	Acid citrici aut tartarici,	ʒss.
	Aq.,	℥vi.

M. Sig.—One or two tablespoonsful every hour.

This mixture tastes good, is readily taken by the usually thirsty patients, and is very well borne. The author employed this remedy in several cases of typhoid fever with very good results. In most of the cases the exhibition of the glycerine was followed by a decrease in the daily excretion of urea varying from ninety to one hundred and fifty grains.—*Allgemeine Medicinische Central-Zeitung*, December 1, 1883.

DISADVANTAGES OF KAIRINE IN PNEUMONIA.—Dr. Riegel advises against the employment of kairine in pneumonia. Independently of the fact that the danger in pneumonia does not lie in the high temperature, the antipyretic effect of the drug in this disease is very slight. It was not always possible to reduce the temperature to the norm even with large doses of kairine, and when this result was obtained the fever would often return quickly in spite of a continued administration of the remedy. The influence upon the frequency of the pulse was still less marked. The chief inconvenience of the kairine treatment, however, lies in the fact that it often causes a most threatening state of collapse, and it was an occurrence of this kind that induced the author to desist from any further employment of the drug.—*Centralblatt fur Klinische Medicin*, November 10, 1883.

Translations from Our Foreign Exchanges.

Translated for MEDICAL NEWS, from the French, by Dr. Illowy,
Cincinnati, Ohio.

THE TREATMENT OF ALCOHOLISM BY STRYCHNINE.—BY DR. DUJARDIN BEAUMETZ (PARIS).

ALTHOUGH long ago already Giacomini called attention to the physiological antagonism existing between alcohol and the majority of poisons, although Magnus Huss applied strychnia in the treatment of certain phenomena of alcoholism, it is to Luton, of Reims, that we owe the vertible formulation of the treatment by this alcaloid. Luton considered strychnine as *the medicament* for alcoholism, and used it in the treatment of all stages of alcoholism, and particularly of *delirium tremens*; he does not hesitate to give quite considerable doses; in cases of *delirium tremens* he gives two to three hypodermic injections a day of one-tenth gr. of strychnia sulphate; internally he administers in the twenty-four hours about three-fifths of a gr. of strychnia sulphate in broken doses, or four grs. of the extract of nux vomica, or ʒiiss of the tincture.

Luton goes still further in this matter, and wants to see strychnine employed as a preventive, and that a certain quantity of it should be introduced into the intoxicating liquors, as absinthe, bitters, etc. The State, according to him, should authorize such a mixture, which would obviate the disastrous effects of alcohol.

In support of Luton's thesis a great many observations can be cited where the manifestations of alcoholism had disappeared under the influence of strychnine, and of these facts the most curious is the observation of the American physician, Morey, in which a drunkard daily removed the effects of the alcohol by taking large doses of strychnia sulphate.

These are the facts which I have gathered and these are the conclusions I have arrived at; the fact is recognized that all drinkers of considerable quantities of alcohol present a strong resistance to the action of poisonous substances. This is a fact known a long time, and it is well known that in *delirium tremens* we can administer considerable doses of opium and of digitalis without producing any toxic phenomena. I have recently insisted on this point in my lectures on clinical therapeutics and have given the following explanation: In order that a medicament produce its therapeutic or toxic action, it is necessary that it make an impression on certain parts of the cerebro-spinal axis, but this impression is impossible unless the nervous element be free of all anterior impregnation.

The experiments made by Claude Bernard and Paul Thenard are very conclusive in this respect. Take a rabbit; subject him to the vapors of ether when he is asleep, inject into him a poisonous dose of prussic acid; as long as the animal is under the influence of the anæsthetic sleep the effects of the prussic acid will not be produced, but if the ether inhalations be stopped, at the moment of awakening, the animal will be annihilated by the prussic acid. Here the impregnation of the cerebral cellules with ether opposes the action of the prussic acid.

In the topers we find the same conditions as in experimentation. In them the cerebro-spinal axis, and principally the brain, are impregnated with alcohol; and at one time I have demonstrated, apropos of a case of acute alcoholism, the presence of alcohol *en nature* in the brain of a man who had succumbed to the ingestion of a litre of brandy. These cellules, thus impregnated by alcohol, oppose with certain limits the remedial or toxic effects of substances administered to the alcoholics.

As to the action of strychnia in *delirium tremens*, it is a very sure and a very favorable one; since the communication of Luton I have many times in my service at the hospital St. Antoine had recourse to it, and I have always obtained good results from it. I administer the strychnine by subcutaneous injections, and I begin as Luton does, with a dose of one-tenth gr., which I repeat in five hours; sometimes, if the accidents persist, I give a third one before the end of the twenty-four hours.

From an experimental standpoint Luton is again perfectly correct, and experiments I have made on rabbits and dogs demonstrate in a very conclusive way that there exists, within certain limits, be it well understood, a real antagonism between poisoning by alcohol and poisoning by strychnine, and *vice versa*. In this respect I can not adopt the view of Raphael Dubois, who considered this antagonism illusory. Thus it seems to me established, clinically and therapeutically, that strychnia acts favorably in the toxic manifestations of alcohol. Is this favorable action carried out on *all* the manifestations of alcoholism, or on the contrary, does it address itself only to certain manifestations? If we are to believe Luton, strychnine addresses itself to all the manifestations, and is, as he says, the medicament for alcoholism.

We do not know the wherefore of this action, but as we know that strychnia acts upon the cellular elements of the cerebro-spinal axis, it is probable that it is in the nerve-cell itself that the antagonism between alcohol and strychnia is produced; but the nervous phenomena, whether of simple drunkenness or acute delirium, are only one of the phenomena of alcoholic poisoning, and the strychnine can not hinder either the inflammations of the liver, the modifications of the intestinal mucora, the changes brought about in the blood, the atheroma of the arteries, or even the meningeal inflammation symptoms, which all result from the local irritant action of alcohol. It is the ensemble of these lesions which constitutes the veritable alcoholism, and it is readily understood can not remedy these.

Thanks to this strychnine, it is possible to give to animals, as for instance, dogs, considerable quantities of alcohol without causing death, and bring on the ulcerative gastritis of drunkards, and M. Jaillet, in his thesis, calls attention to some curious experiments that he has made.

Therefore strychnine should be regarded, not as the remedy for alcoholism, but as the *remedy* which best combats the nervous manifestations of alcoholism, drunkenness and *delirium tremens*. This strychnine may permit one perhaps to drink more, as it actively combats the delirium of drinkers, but it can not prevent the grave alterations of the different viscera, the ensemble of which constitutes the capital fact of poisoning by alcohol; and if we were to adopt the ideas of Luton these disorders would be augmented, because a man could drink, without becoming apparently drunk, considerable quantities of alcohol.

Strychnia must therefore remain in therapeutics as a powerful means of combating *delirium tremens*, but not alcoholism, as it should be understood to-day.—*Bullet. de Therap. Union Med., Canada.*

BICHROMATE OF POTASSA.

THIS remedy has been recalled from oblivion by Dr. Guntz, of Dresden, and Prof. Vulpian, of Paris. The Saxon physician recommends it as an excellent antisyphilitic, but as a prophylactic against syphilis. He uses it in solution in the form of a *gaseous chromic water* prepared as follows:

℞	Potassa bichromate	0.03 ctgr.
	Potas. nitratis	0.10 “
	Soda nitrat.	0.10 “
	Sod. chlorid.	0.20 “
	Aq.	600 grmms.

Dissolve the salts in the water and render the same strongly gaseous with carbonic acid.

M. Vulpian, in two articles published in the *Journal de Pharmacie et Chimie*, shows that bichromate of potassa will give good results in certain forms of dyspepsia. The therapeutic use of this remedy has been particularly successful in cases where the phenomena of dyspepsia, allied without doubt to some catarrhal or arthritic affection of the stomach, have analogy with those that demonstrate to us, at the outset, the development of epithelioma of this organ. M. Vulpian, on account of the disagreeable odor prefers to administer it in pill form. This is one of his formulæ:

℞	Potassa bichromat.	0.50 ctgr.
	Extract valerian.	5 grmms.

M. ft. pillul. argenties, No. 50. Each pill contains 1 ctgr. of the remedy. M. Vulpian, at times also prescribes 2 ctgrs, and the daily amount may vary from 2 to 10 ctgrs. For external use it is employed as a caustic; it is used in solution, in pomade, against venereal ulcers, but more frequently against warts.

℞	Potass. bichromat.	1 grmm.
	Axung	20 grmms.

M. ft. ungt. In adults it is preferable to cauterize the wart directly with a crystal of bichromate; the action is somewhat slow but it is as certain as that of Lapis' infernalis; it is less disagreeable and less dangerous than nitric acid.—*Journal de Science Med. de Lille.—Progrés Médicale.*

Book Notices.

Illustrations of the Influence of the Mind upon the Body in Health and Disease, Designed to Elucidate the Action of the Imagination. By Daniel Hack Tuke, M. D., F. R. C. P., LL. D., Late President of the Medico-Psychological Association, etc. Second American from the Second English Edition. 8vo. Pp. 482. Philadelphia: Henry C. Lea's Son & Co.. Cincinnati: R. Clarke & Co.

The author states that he was led to write this work in consequence of having read in November, 1869, the following in a newspaper, under the heading of "Curative Effects of a Railway Collision:"

"Allow me to confirm all that your two correspondents have related with respect to the alarming collision on the 17th inst. on the Midland line.

"Nothing needs be added either to their descriptions of the circumstances, or to their just condemnation of the reckless negligence which brought us so near to death; but the shock produced so curious an effect on myself—an effect, perhaps, unparalleled in the history of railway accidents—that you will, perhaps, excuse my troubling you with the details.

"At my hotel in Manchester, on Tuesday night, I was seized with all the symptoms of a violent attack of rheumatic fever; in fact, my condition so alarmed me, and my dread of a sojourn in a Manchester hotel bed for two or three months was so great, that I resolved to make a bold *sortie*, and, well wrapped up, start for London by the 3:30 P. M. Midland fast train from the London terminus. From the time of leaving that station to the time of the collision, my heart was going at express speed; my weak body was in a profuse perspiration; flashes of pain announced that the muscular fibers were under the tyrannical control of rheumatism, and I was almost beside myself with toothache. Crash! smash! bump! and bang! and from side to side of the carriage I went like a billiard ball under a hard cushion hit. The compartment was soon seen to be sprinkled with the blood of a hapless victim whose face had come into crushing contact with it."

The author states that the rest of this part of the paper was unfortunately wanting, but he learned from other sources that, as the heading intimated, the patient was cured of his rheumatism. The remarks which this circumstance elicited from the press (general and medical), led him to think that the whole subject of the influence of the mind upon the body deserves more serious and systematic consideration than it has received; and, consequently, he has endeavored, in this work, to formularize the generally admitted facts of physiology and psychology so far as they bear on this question, and to collect from the sources at his command all authenticated facts illustrative of this influence. In other words, he has had the following objects in view:

1. To collect together in one volume authentic illustrations of the influence of the mind upon the body, scattered through various medical and other works, however familiar to many these cases may be, supplemented by those falling within his own knowledge.

2. To give these cases fresh interest and value by arranging them on a definite physiological basis.

3. To show the power and extent of this influence not only in health in causing disorders of sensation, motion and the organic functions, but also its importance as a *practical* remedy in disease.

4. To ascertain, as far as possible, the channels through, and the mode by, which this influence is exerted.

5. To elucidate by this inquiry the nature and action of what is usually understood as the imagination.

The work is not a mere collection of anecdotes or wonderful accounts of cures brought about by mental impressions, but it is devoted to a scientific investigation of the relations existing between the mind and the body, and of the influences exerted under different circumstances of the former upon the latter. In Part I. the intellect is considered, and then follows the consideration of the intellect on sensation—as æsthesia, hyperæsthesia, anæsthesia, paræsthesia, dysæthesia, sensation from association of ideas in accordance with the law of contiguity. In the next chaper is discussed the influence of the intellect upon the voluntary muscles, as muscular contraction and relaxation. Part II. is devoted to the consideration of the emotions; then follows an investigation of the influence of the emotions upon sensation, like, as in Part I., of the influence of the intellect upon sensation. In other Parts, the volition and other departments of the mind are similarly treated.

The work, we can assure our readers, will be found a most valuable addition to medical literature. Many phenomena of the mind, and the effects following, are explained, which, by very many, are imperfectly understood, and by the ignorant and superstitious are looked upon as miraculous. There are forces acting irregularly and capriciously, which the physician, if he studies and understands them, may apply and guide with skill and wisdom in curing diseases. Spiritualists and faith cures work, apparently, miracles with some of these forces, which are only natural ones. A study of Dr. Tuke's work will lead to a more thorough knowledge of these forces.

THE CINCHONA BARKS: Pharmacognostically Considered. By Friedrich A. Flückiger, Ph. D., Professor in the University of Strasburg, Germany, and Author of "Pharmaceutical Chemistry." Translated from the Original Text, with some Additional Notes, by Frederick B. Power, Ph. D., Professor of Pharmacy and Materia Medica in the University of Wisconsin. With Eight Lithographic Plates and One Wood-Cut. Large 8vo. Pp. 100. Philadelphia: P. Blakiston, Son & Co. Cincinnati: R. Clarke & Co. Price, $1.50.

As the title indicates, this work is devoted to the study of the cinchona barks. The author describes minutely everything pertaining to them. In the first place their botanical origin is treated, and then follows a description of their habitat, remedial effects, etc.

The work, in brief, contains a complete history of everything pertaining to cinchona or Peruvian bark, and its alkaloids—as culture, collection of the barks, appearance and anatomical structure, contents of their tissue, location of the alkaloids, varieties, so-called spurious barks, commercial statistics, chemical constituents, quantitative estimation of the alkaloids, etc. It forms a most interesting monograph of one of the most important medicines of the materia medica.

THE MEDICAL DIRECTORY OF PHILADELPHIA FOR 1884. Edited by Samuel B. Hoppin, M. D. 12mo. Pp. 210. Philadelphia: P. Blakiston, Son & Co. Cincinnati: R. Clarke & Co. Price, $1.50.

Certainly every physician, dentist, druggist, and almost every intelligent person in Philadelphia must consider the possession of this work a necessity; and it will be a desideratum to very many living at a distance from Philadelphia.

The work contains not only the names of all physicians residing in Philadelphia, numbers and streets of their offices or residences, name of college at which each one graduated and time of graduation, but contains the same information in regard to dentists and druggists. It has lists of all public and charitable institutions—as hospitals, homes, asylums, dispensaries, directory for nurses.

But it would take too much space to enumerate the half contained in the work. It has every conceivable kind of information, to be allowed to exaggerate a little. It is indeed *multum in parvo.* We hope soon something of the kind will be published for Cincinnati.

A MANUAL OF OBSTETRICS. By A. F. A. King, M. D., Professor of Obstetrics and Diseases of Women and Children in the Medical Department of the Columbian University, Washington, D. C. With 59 Illustrations. Second Edition. 12mo. Pp. 338. Philadelphia: Henry C. Lea's Son & Co. Cincinnati: R. Clarke & Co.

This little work upon obstetrics will be highly valued by medical students. We feel quite sure that it will be in great demand by them, so suited is it to their wants. Of a size that it can be easily carried, yet it contains all of the main points in obstetrics sufficiently elaborated to give a full and correct idea of them. The general practitioner will also find it very useful for reference, for the purpose of refreshing the mind.

We can confidently assert that it will be found to be the best class text-book upon obstetrics that has been issued from the press.

ANNUAL REPORT OF THE PRESBYTERIAN EYE, EAR AND THROAT CHARITY HOSPITAL FOR 1883, Baltimore, Md.

We are in receipt of this report, and find that it exhibits an exceedingly prosperous condition of the institution of which it gives an account. It is managed by a board of lady managers, of whom it is stated that they have not "grown weary in well-doing."

Although the institution bears the name of a Christian denomination, yet it has not been denominational in its work. Of 4,500 new cases treated 1,638 were Methodists, 1,259 Roman Catholics, 584 Lutherans, 449 *Presbyterians*, 273 Episcopalians, 238 Baptists, 112 Hebrews; of these, 3,983 were whites and 570 colored.

The report of the surgeon shows that during 1882 3,963 new cases were treated, with an aggregate attendance of 23,436 patients. For the year just closed, the new cases had increased to 4,553, with an attendance of 28,642. During the six years the Hospital has been in operation, the whole number of patients treated amounts to 130,123, a number equal to one-third of the population of the city of Baltimore, calculated upon the basis of 400,000. During the six years there have been 369 operations for cataract of the eyes, 578 crossed eyes in children have been straightened, 490 cases of tear-drop were operated upon, 133 lost and painful eyes have been removed to prevent blindness in the remaining sound one, 665 operations have been performed upon diseased lids, and 158 artificial pupils have been made. Upon the ear and throat a very large number of successful operations have been performed. The report shows that the institution is doing a good work.

Transactions of the American Ophthalmological Society. Nineteenth Annual Meeting, Catskill Mountains, 1883. 8vo. Pp. 175. New York: Published by the Society. Paper Covers.

This work, which is interesting to ophthalmologists more than to any others of the profession, contains quite a number of interesting papers on various morbid conditions of the eye. Several of the papers exhibit considerable study and research.

Catskill was again selected for the next meeting. The election of officers for the ensuing year resulted as follows: President, Dr. H. D. Noyes; Vice-President, Dr. W. F. Norris, Secretary and Treasurer, Dr. Richard H. Derby; Corresponding Secretary, Dr. J. S. Prout; Publishing Committee, Dr. E. G. Loring and Dr. D. B. St. John Roosa.

There were present at the nineteenth annual meeting thirty-eight members. The whole number of members is eighty-five.

Editorial.

Miami Medical College.

GRADUATING EXERCISES OF THE TWENTY-FOURTH ANNUAL SESSION.

The twenty-fourth session and Commencement exercises of the Miami Medical College took place in Smith & Nixon's Hall on the evening of March 6. The occasion was distinguished by a large popular attendance. The Cincinnati Orchestra enlivened it with choice selections of music.

The exercises were opened with prayer by Rev. Dr. Joyce, after which Dr. Wm. Clendenin, Dean of the Faculty, made the usual preliminary remarks, in which he noticed first the continued prosperity of the College, and the fact that the number of students registered in the various medical colleges of the country is considerably less than that of the preceding year, amounting in some of the schools to a loss of twenty to twenty-five per cent.

There are always considerations other than the standing of a medical college and its facilities for teaching which influence many students in the choice of a college.

The classes in a medical college may easily be enlarged, provided such a school has no higher conceptions of its obligations to the profession than the publication of a large list of matriculants. But the Trustees and Faculty of the Miami Medical College, believing that the interests of both the profession and the general public will be best subserved by the *quality* rather than the *numbers* of the graduates of a medical institution, care to exercise greater diligence in excluding incompetent and improper persons from the reception of its honors than in adding to the number of its graduates. Each succeeding session more attention is given to the selection of students admitted, in order to ascertain that they have had that kind of a preparatory education which is considered necessary to qualify a young man for the study of medicine.

This faculty would prefer to be the instructors of a class of one hundred and fifty intelligent students, well fitted for their work by a good preliminary education, than to lecture to a much larger class, the majority of whom had not received a fair preliminary education, and who were consequently wanting in mental discipline, and who, by previous habits and occupation, were unaccustomed to scientific study. With a deep sense of the many defects of the old system of medical teaching, the faculty has endeavored to remedy it by a more thorough, deliberate and practical course of instruction. The term of study has been lengthened, and the college sessions, formerly only three and a half, are now five and a half months.

This was the first medical school in the West to inaugurate a college clinic, where each student could have ample opportunity for personal and deliberate examinations of sick persons under the direction of a teacher; and while systematic instruction is not made to hold an accessory and subordinate position, clinical instruction constitutes a fundamental feature of the school. Our system of instruction includes systematic and practical instruction in microscopy, in the chemical and physiological laboratories and dissecting room. Diseases of the throat and air passages, skin diseases,

diseases of the eye and ear, diseases of women and children, form a part of the regular curriculum of study. In the College clinics from ten to twelve thousand patients are examined and prescribed for each year by members of the faculty. These clinics are carried on systematically day by day, and so arranged that each student may acquaint himself with the practical duties of his profession. In addition to the clinics held in the College, daily clinics are given in the Cincinnati Hospital, the largest and best appointed hospital in the country. To all of these clinics the students of this College have access. It is therefore apparent that the gentlemen who are now about to receive the degree of Doctor of Medicine have already a practical medical experience. They have been taught not only the general principles of medicine, but have been well instructed in the clinic-room in the application of those principles for alleviating human suffering.

After briefly noticing the faithful, honest and legitimate methods employed by this faculty for instructing students, the Dean passed to a consideration of medical teachers in general, and of the Miami Medical College instructors in particular. Many suppose that medical teachers are mere schoolmen who confine their instruction to the forms and theories laid down in books, but this is a great mistake, as nearly all the distinguished medical teachers of the past have been practicing physicians. The most prominent professors of this period are engaged in the active practical duties of their profession, and equally distinguished for their skill in the diagnosis and treatment of disease.

The founders of the Miami Medical College and those who have since been connected with it as instructors, and who have aided in placing it upon such a basis as to make it equal to the best colleges in the country, require no introduction to this community. During the war, and throughout the history of our community, they were distinguished not only for devotion to the cause of humanity in the regular pursuit of their profession, but for patriotism, for charity, for labor in the cause of education—R. D. Mussey, C. L. Avery, George Mendenhall, Jesse P. Judkins, C. G. Comegys, John Davis, Henry E. Foote, E. Williams, B. F. Richardson, and a man justly distinguished and well known to this entire community for his true manliness, his ability and his energy, Wm. H. Mussey. They gave their time, their money and their personal influence to establish hospitals for the sick poor, infirmaries, asylums and homes for the aged, the decrepit and the insane. They were instrumental in building up libraries, schools, colleges and churches. Their voices were always heard on the side of truth, justice and right, and they spoke on these points with no uncertain sound.

As a parting to the graduates, the Dean quoted from the code of ethics: "Your minds ought to be imbued with the greatness of your mission and the responsibility you habitually incur in its discharge. These obligations are the more deep and enduring because there is no tribunal other than your own conscience to adjudge penalties for carelessness and neglect." I therefore admonish you to be honest, to be truthful and to be diligent; and, above all, strive to possess yourselves of that wisdom which has its beginning in a proper godly fear. The Dean then presented the graduates to Hon. Jacob D. Cox, of the Board of Trustees, who conferred the degree upon the following gentlemen:

Bailey, Viceroy Marion, Ohio.
Bibbee, George M., Ohio.
Birchard, Almon Dwight, Pennsylvania.
Dannetelle, Fenelon F., Indiana.
Dorroh, John R., Ky.
Dorschug, Frederick P., Ohio.
Henry, James Wales, Ohio.
Henry, Rolando H., Ill.
Jones, Benjamin F., Ala.
Keever, Benjamin W. Dudley, Ohio.
Kelly, Richmond, Oregon.
Knight, Amos Wesley, Ohio.
Latham, Edward H., Ky.
McClellan, Benjamin R., Ohio.
Marquart, Oscar M., Ohio.
Marsh, Frederick O., Ohio.
Milholland, David M., Ohio.
Moore, Allen Jackson, Ohio.
Patton, Frederick W., Ill.
Rodgers, Everett D., Indiana.
Rush, Andrew Wilson, Ohio.
Sayres, Konn Baker, Ohio.
Smolley, John G., Indiana.
Stengel, Walter, Pennsylvania.
Thompson, John Albert, Indiana.
Van Zant, C. Burton, Ohio.
Mordecai, H. Fletcher, Ohio.
Wallace, Charles E., Pa.

Prof. Wm. H. Taylor delivered the valedictory address.

The subject of the Doctor's address was, "The Relation of the Medical Profession to the Community." Asserting that, growing out of the special knowledge of the physician, he had obligations to the community higher and nobler than simply his personal relations to his patrons, and that this obligation was to be met in the influence of the profession in conserving the health of the people, he then dwelt upon the importance of a healthful state of the community; that "without obedience to the laws of health it is impossible to secure the highest culture of the citizen, physical, intellectual and moral."

The great increase of population has developed unsanitary influences to such a degree that consideration of the sanitary welfare of the people can not longer be left to the benevolent impulse of a few, or looked upon as of interest only to a class of scientists, but for the prosperity of the body politic it compels the attention of the State. Beaconsfield, shortly before his death, said; "The health of the people is the first duty of statesmen."

But the subject is of even greater importance from its international relations, for "a Nation is no longer an isolated body, wishing ill to all its neighbors, but from the intimate and speedy communication each country is influenced by the health or disease of another. Witness the anxiety we felt when cholera appeared in Egypt a few months ago, and to-day our commercial world is affected by the embargo of pork in Germany, for hygienic reasons.

In the great struggle of Nations, the best win, because goodness is the associate of strength and healthfulness.

But still more closely does the subject of public health come to us, for so intimate is the interdependence of the physical, the mental and the moral, that an improvement or deterioration of one is followed by a corresponding change in the other two, so that for the moral elevation of the community a prime necessity is to improve their sanitary surroundings.

Pecuniarily the subject is fraught with great import. The burden which the feeble or non-productive lay upon the producers is incredible, but the computations of Drs. Jarvis and Tarr warrant the assertion that the pecuniary loss to this country from preventable sickness and death is over $100,000,000 annually.

The Doctor then directed attention to some of the conditions of the community which specially demanded the scientific supervision and influence of the medical man. The question of urban dwellings for the multitude is of pre-eminent importance, the modifications of nature caused by the proximity of the buildings of a city are a fruitful source of evil, and the construction of the house itself requires careful thought to make it fulfill its functions as an aid to nature and not its antagonist; by adding to the health and comfort of American dwellings we shall add to the resources and happiness of their inmates, and contribute to that vigor which makes for National prosperity.'"

Inseparably connected with the subject are the questions of transportation, preservation and supply of food and water.

The great mortality of children suggests to the medical philanthropist a most inviting field of study in seeking to remove the causes of such mortality; and upon the subject of contagious diseases the Doctor said: "It is not utopian to say that the time must come when we shall demand their *extinction*, and their occurrence shall be a reflection upon our intelligence and sanitary cleanliness."

From our public schools are to come the future leaders of the people, pre-eminent among whom are the mothers, and, therefore, the system demands the watchful care of the physician. More attention must be given to adjusting the mental and physical relations in the child, more care to *individual* capacity. Eminent authority was cited to show the injurious effects of the popular methods of study.

Our census reports and other evidence prove the increase of insanity largely from the "intensity" of modern life, and intimately allied with it is the vice of suicide, in all of which the physician can have a salutary preventing power by seeking to develop "sound minds in sound bodies."

The Pandora's box of evil, intemperance, was alluded to, especially as entailing mental disorders upon the offspring of inebriates.

The vast field for the exercise of the technical knowledge of the medical man was referred to, in the interests of public health, by the supervision of food supply to prevent injurious adulterations, to guard against the evils of undrained towns, of the entrance of diseased immigrants, to substitute harmless for harmful process of manufacture, and scores of questions yet unanswered as to the causation and prevention of disease. "To these demands the members of our profession are fully alive and willingly assent, and though their pecuniary gains are won by their efforts to cure disease, it is their constant and unselfish aim to trace out and stamp out its sources, and it is their desire and practice to take an active part in every movement which has for its object the sanitary condition of the people."

In conclusion, the members of the graduating class were exhorted to earnestness in the discharge of individual duty, as earnest interpreters of nature and worshipers of Him who is above nature, so making their chosen profession a sacred ministry, not only for physical knowledge but for the service of God and man.

The Faculty prize of $100 gold was won by Dr. Thompson, of the graduating class.

The successful candidates for interne at the Cincinnati Hospital competitive examination were J. Benjamin Mayer, John C. Oliver, Henry W. Porter and Albert V. Phelps. There were six candidates, but these gentlemen, all graduates of the Miami College, carried off the palm.

The exercises closed with a supper at the Burnet House, given by the Faculty, in honor of the Alumni of 1883–4.

Standard of Educational Requirements on the Part of Those Contemplating the Study of Medicine.—We have received from Dr. John I. King, of Burgh Hill, O., the circular below, which he requests us to publish. If all the county medical societies in the United States would adopt like resolutions and rigidly carry them out, the next generation of physicians would hold a much higher position as men of education and culture (culture usually accompanies education) than the present one. But while we heartily commend our professional brethren, of Trumbull County, for their efforts to elevate the standard of preliminary education, yet we do not think that the time is yet ripe for the general adoption of their action by medical societies. In the first place, there would not be a sufficient number of candidates for the study of medicine having the educational attainments described to equal the demand for physicians throughout our great country. There are over 50,000,000 of people in the United States, and, scattered but sparsely over many parts, a larger proportion of physicians is required to the inhabitants than in Europe, where the population is uniformly dense. Besides the present large population, it is being increased weekly many thousands by immigration. Although, at this time, the medical colleges are turning out probably nearly double the number of doctors needed, and many of them shamefully deficient in their preliminary education, yet it is evident that there is a very large number of new graduates in medicine necessary to supply the demand. Of the young men that graduate yearly at the colleges affording the necessary preliminary education in letters and the sciences, not more than one-fifth of them study medicine. The very large majority enter the ministry or the profession of law.

Of those that do not many become teachers; others pursue some scientific or literary pursuit, and only a very few turn their attention to medicine.

But an obstacle in the way of many county medical societies adopting the action of the Trumbull County Society, would be that they would not have any members competent to act as examiners of those proposing to become students of medicine to ascertain whether they had the required qualifications. Certainly such societies would not be willing to solicit their learned friends of the ministry or of the law to discharge the duty for them.

But without further introductory remarks we will give the circular:

To the Medical Profession:

"For some years we have thought of the subject under consideration, and how best to bring it before our medical brethren. In the early part of 1883 we prepared a set of resolutions and a schedule of requirements to present to our County Medical Society. In the meantime the Medical Society of the State of Pennsylvania at the annual meeting in May, 1883, adopted a schedule of subjects for medical examinations; thereupon we modified our schedule to secure uniformity, leaving our resolutions as before, incorporated the two and presented them to our County Society where they were adopted unanimously. The time has come to make a move in this matter. Why should not Ohio come abreast with Pennsylvania? Why should not we require as thorough preliminary study as the medical departments of either Harvard or Yale Colleges? In short, why not meet the demands of the times and the dignity of our profession? Many of the members of the faculties of our medical colleges are in sympathy with the move. In conversation with the dean of a Columbus medical college he said: 'The illiteracy of many medical students is lamentable and a positive disgrace to the profession.' Why not take steps to prevent this being said against our students in the future? Any young man of energy can in a reasonable time master the schedule of requirements.

"As an initial move, the following resolutions were unanimously adopted by the Trumbull County (Ohio) Medical Society, January 31, 1884, and Drs. Julian Harmon, J. R. Woods and T. H. Stewart, appointed Medical Examiners.

In accordance with Resolution VII we respectfully ask the Society of which you are a member to early report your action in this matter, so we can present this subject for consideration at the next annual meeting of the Ohio State Medical Society. Yours fraternally,

Burgh Hill, O., Feb. 14, 1884. JOHN I. KING, M.D."

TO REGULATE THE STUDY OF MEDICINE.

Resolved, I.—That this Medical Society shall annually elect a board of Medical Examiners, to consist of three members, whose duty shall be to examine applicants for admission to the study of medicine.

Resolved, II.—All applicants for admission as students of medicine under the tuition of members of this Society shall present themselves before the Board of Medical Examiners and satisfactorily pass examination in the following requirements:

"I.—A written statement, previously prepared, setting forth the candidate's course of study.

II.—An Essay.

III.—Writing from dictation.

IV.—Spelling—Oral and Written.

V.—Reading.

VI.—Geography—Descriptive, Physical.

VII.—Political Economy.

VIII.—History—Ancient, Modern.

IX.—Geology.

X.—Botany.

XI.—Chemistry.

XII.—Natural Philosophy.

XIII.—Mathematics—Arithmetic complete; Algebra, through quadratic equations; Geometry, through plane geometry.

XIV.—Languages—English, standard school edition of English Grammar; Latin, Cæsar's Com., 4; Virgil, 4; Cicero's Oration, 2; Greek, the Reader; Gospels; Xenophon's Anabasis, 2."

Candidates for examination may elect in French, Keetel's Collegiate Course in French, Composition, Translation and Reading, and Lacomb's History of the French People, instead of Cæsar's Com., Virgil and Cicero's Orations; and in German, Whitney's German Grammar, Composition, Translation and Reading, Schiller's Wilheim Tell and Goethe's Faust instead of the Greek Reader, Gospels and Xenophon's Anabasis; but such elementary knowledge of Latin and Greek will be required as to enable the candidate to intelligently comprehend the etymology of medical terms derived therefrom.

Resolved, III.—No member of this Society shall receive any person as a student of medicine unless he present a favorable certificate from the Board of Medical Examiners.

Resolved, IV.—The time of study required by members of this Society shall be five (5) years including lectures.

Resolved, V.—Members of this Society shall recommend their students to attend only such medical colleges as either require an examination for admission similar to the one required by this Society, or make the full three years' graded course of study obligatory for graduation therefrom, and otherwise endeavor to elevate the standard of medical education.

Resolved, VI.—That this Society requests the Ohio State Medical Society to adopt the foregoing schedule of requirements and use its influence to secure legislation making the same obligatory upon persons entering their names as students of medicine in the State of Ohio.

Resolved, VII.—That these resolutions be printed and a copy sent to each Medical Society in this State with the request that they early report their action thereon.

Adopted by the Trumbull County (Ohio) Medical Society, January 31st, 1884.

That portion of the above schedule of subjects for examination within quotation marks was laid down in a resolution by the Medical Society of the State of Pennsylvania in 1878, and adopted by that Association at their annual meeting in Norristown, Pa., in May, 1883.

INSURANCE WITHOUT EXAMINATION?—We clip the following from the *Lancet*, of London, of March 1st:

"No life assurance office ought to insure a life without examining the subject. We know that the practice of dispensing with this precaution prevails. Illustrious and distinguished persons are insured without being examined, and there is no law to prevent the insurance of a life without the knowledge of the person on whose life the insurance is effected. It would probably be difficult to enforce such a law if one existed. If offices choose to gamble—and insurance without examination is, of course, gambling, neither more nor less—they can not be prevented from doing so. Probably the best plan would be to pass an Act barring all claims made on account of insurances effected after a certain date upon the lives of persons who do not with their own hands countersign the policies in the presence of witnesses. This would exclude insurances on the lives of very young children, and by so doing put an end to a very disastrous facility for fraud and murder."

There is a class of life insuring companies which is becoming very popular in this country. We mean that class in which only assessments are made when a death occurs, and then all members are assessed one, two or three dollars. These companies, we find, require no medical examinations of those proposing to insure in them, or, if any are made, they are made very imperfectly—usually made by a physician of the applicant's own selection. As a consequence, while the cost of them is comparatively small for the first few years of their existence, often not amounting to a quarter of that of the regular companies, yet, in the course of five or six years; or, in the case of a few, a few years longer, the assessments become so numerous and the cost so great that they necessarily come to an end. The cause of their want of stability is evident enough. No medical examinations of applicants being required, or only imperfect ones, they soon become filled up by those individuals who have been rejected by the regular companies and by those who know that they have inherited tendencies to certain diseases. When a new company of the regular class forms it is under the necessity of appointing agents and drummers to obtain business, and it establishes itself slowly, for the reason that healthy men, who feel that they have a long lease on life, are slow to insure, requiring much pressure to be brought to bear upon them, but a new company, on the assessment plan, receives applicants by the thousands. Its popularity seems wonderful for a few years, and those connected with it boast much how little it costs. But after awhile, the many unsound persons who have become connected with it, in consequence of the ease of getting into it, begin to die at so a rapid rate, that those who are healthy are glad to forfeit their membership, and lose the money that they have paid.

Many of our readers remember, no doubt, the excitement that occurred last summer in one of the counties of Ohio, where it came to light that many *respectable* citizens were engaged in having policies of life insurance issued upon the lives of aged and decrepit people in favor of themselves, whom they knew would die in the course of six months, and then collecting the insurance and appropriating it. The insurance company in which they had these persons insured was of the assessment class. In the majority of instances, the parties on whose lives the policies were issued were ignorant of the fact. It seems incredible that persons of respectability and high position in a community would engage in such dishonest proceedings, but such was nevertheless the fact.

No life insurance company can do a legitimate business that does not require a rigid medical examination of all applicants.

An Excellent Idea.—It has become so common of late years for dissatisfied relatives to contest the wills of those who have died and left property, on the ground that the testators were of unsound minds when making their wills, it is becoming to be generally agreed that it is folly to make a will by which to have property disposed of after death, for that, in the majority of cases, it will either be set aside by a court on the application of a dissatisfied legatee, or it will be largely wasted by protracted litigation; that the best way for a wealthy man to do on arriving at an age when, in the course of nature, death can not be fur distant, is to dispose of his property before he dies. But, as a general rule, men do not wish to give up the possession of their wealth while living. They prefer to hold and manage it while they live.

We learn by a recent number of the *Med. Record* that a bill has been presented to the New York Legislature which, if it should become a law, will relieve the old gentlemen of wealth of that state of much embarrassment, as regards the final disposition of their means, who have sons, daughters, nephews and nieces anxiously waiting for them to die, expecting large bequests to be made to them; but some of them not having their expectations realized would probably bring suit to invalidate the wills, in which they are respectively interested, on the ground of mental alienation. The bill allows a person to file his will in the Surrogate's office of the county in which he resides, and permits him to prove before his death his capacity to make a will. Now is this not a most happy idea? If there happens to be a dissatisfied nephew or niece, or a son, who has been nurturing exaggerated claims upon a rich old uncle's or father's generosity, and finds, very greatly to his disappointment and chagrin, that the bequest left him is so much less than he expected, that he is convinced that the testator is not of sound mind, he will be under the necessity of proving it in the face of the old gentleman.

The *Record* says: "It is uncertain, of course, what advantage would be taken of such a law if it should be passed by the Legislature, but it is a plan which has merits, and persons ought to be at liberty to try it if they desire." We presume it means that, in consequence of the greater difficulty in proving a testator to be *non compos mentis* during life than after his decease, when incapacity to make a will does really exist, he might be influenced to the detriment of those having real claims upon him, and it would be made impossible to undo the harm. We admit that this might occasionally be the result, for, in this world, it is impossible to provide against every emergency; but we think that such instances would only be occasional—mere exceptions to a rule.

The provisions of the act are as follows:

"SECTION 1 To any will heretofore or hereafter executed, the testator may make or annex his petition, to be sworn to before, and presented to, the Surrogate for the county where the testator resides, or to any court or officer having jurisdiction to take probate of wills, asking that such will be admitted and established as his last will and testament.

"SEC. 2. Every such petition shall contain averments that such will was duly executed by the petitioner, without fear, fraud, importunity or undue influence, and with a full knowledge of its contents, and that the testator is of sound mind and memory and full testamentary capacity, and shall state the names and address of every person who at the time of making and filing the same would be interested in the estate of the maker of such will as heir, if such maker should at the making of such petition become deceased, and may also contain the names and addresses of any other persons whom such testator may desire to make parties to such proceedings.

"SEC. 3. Such court shall thereupon, upon request of such testator, appoint a time for the hearing of such petition, and issue citations to the parties named in such petition, and direct published notice of such hearing and have such hearing, after proof of citations and of publication of notice, in the manner, as near as practicable, as is required for the probate of wills.

"SEC. 4. If any person named in such petition shall be a minor, or otherwise under disability, a guardian *ad litem* shall be appointed by such judge to represent such person. On such hearing such court shall examine into the matters alleged in such petition, and into the testamentary capacity of such testator, and examine witnesses in relation thereto; and if it shall appear that the allegations of such petition are true, and that such testator was of sound mind and memory and full testamentary capacity, such judge shall decree thereon, and shall cause a copy of such decree to be attached to said will, certified under the seal of said court, decreeing that the testator at the making of such will and such petition was possessed of sound mind and memory and full testamentary capacity."

It is then provided that the decree thus made shall be final.

THE GOVERNMENT AND THE PHARMACOPŒIA.—The *Medical Record*, of March 15, contains the following editorial, from which crops out considerable jealousy of Philadelphia:

"The proposition now before Congress, and to which we have previously alluded, to destroy the present Pharmocopœia, and to create a new one under the auspices of the

National Government, does not appear to be meeting with the cordial support that the promoters doubtless expected. So far as we are aware, the medical and pharmaceutic press, with but two noteworthy exceptions, are frankly opposed to the proposed change of régime. For nearly fifty years the Pharmacopœia, from both a scientific and commercial standpoint, was controlled by Philadelphia. During this period it can hardly be said to have had an independent existence. It chief function was to serve as a foundation for a separate and purely commercial venture. Though published at a nominal price, its contents were deemed of so little value that it rarely found purchasers among either of the professions it professed to represent. It is safe to say that the new Pharmacopœia, though costing twice as much as the old one, has found more purchasers in a year than the old one did in the previous ten. Despite this fact, those who formerly controlled this work profess to be dissatisfied with the result and demand a change, hoping to obtain, through governmental interference, that which the professions of medicine and pharmacy, through their representatives in 1880, decided they were unworthy to hold. We have no hesitation in saying that the labors of the twenty-five gentlemen who prepared the last revision merit a juster recognition than that conveyed by the attempt to render nugatory their work. When we consider that it was purely a labor of love, that no pecuniary recompense has been accepted by them, we are hardly prepared to endorse the bill now awaiting the action of Congress. That Philadelphia is disappointed in not having secured the publication of the present work may be reasonably inferred from the tone of her journals at the time of the award. This is not sufficient reason, however, for the effort, at present being made, to throw both medicine and pharmacy into confusion by the erection of new standards, which, though having the nominal patronage of the Government, will at the same time be entirely without legal validity in every State in the Union. If, as we are credibly informed, the gentleman who drafted the bill before Congress is a member of the present pharmacopœial commission, we can but allude to the bird that fouls its own nest, and leave him to the tender mercies of his colleagues."

SUFFERINGS OF PHYSICIANS IN THE FLOODED DISTRICTS.—The *Medical Record* says: We have received from Dr. D. B. Colton, of Portsmouth, Ohio, a very graphic yet sad description of the sufferings brought about by the flood at that place.

He writes that for nine days his office and residence were under the water. Nearly all his medical books, the accumulation of thirty years, were destroyed. His medicines were ruined and washed away, his buggy wrecked, and he had to swim his horse to high ground for safety.

During this time, he writes, "I was busy day and night. I went from house to house in hurriedly improvised boats, or on rafts, entering the second stories through the windows, or climbing ladders and passing over the roofs and descending through hatches. There was much sickness and suffering, especially among the children. Many women aborted from exposure and terror, and there were a number of cases of eclampsia among the parturient women. Many houses (whole streets) are wrecked, or have been washed away down the raging waters with all their contents. Our people are impoverished, and it will be a long time before they will have anything 'to spare for the doctor.' Six thousand of them are fed to-day by the generous gifts of the noble people throughout our land. God bless our benefactors, and may none of them experience what we have just gone through. If you know of any physicians in your city who have duplicate copies of medical works or anything in the line of physicians' supplies for which they have no use, they will confer a favor if they will send them to Portsmouth."

We hope that there are physicians who will comply with Dr. Colton's request. We will be glad to co-operate.

COMMENCEMENT EXERCISES OF THE MEDICAL COLLEGE OF OHIO.—The Sixty-fifth Annual Commencement Exercises of the Ohio College were held at Music Hall on the evening of March 7. Notwithstanding that the evening was a very inclement one, the attendance was large.

There had been an unusually large attendance of the alumni in the afternoon, including many old graduates, among whom was Dr. J. T. Grubbs, of Kentucky, who graduated in 1821, and was the first graduate to receive his diploma from the College. Dr. Geo. T. Sutton, of Aurora, Ind., another old graduate, presided, and Dr. C. S. Muscroft, of Cincinnati, acted as Secretary, a position which he has occupied for nine years.

At the Music Hall, Prof. Seely, the Dean, opened the exercises with an address in which he spoke of the prosperity of the school. Hon. Flamen Ball, President of the Board of Trustees, presented the diplomas to the members of the Graduating Class. The number of graduates was one hundred. The number of matriculants was three hundred. Our space will not permit us to give the names of the graduates of this session, or we would be pleased to do so.

Prof. Conner delivered the Valedictory Address. Numerous baskets of flowers and bouquets were presented to the gentlemen of the Graduating Class. Some ten prizes were awarded by members of the faculty, consisting mostly of gold medals. John M. Withrow, of Middletown, O., received four of the prizes.

LISTERINE.—This antiseptic, which is advertised in the MEDICAL NEWS, seems to be growing steadily in popularity. We have used it a great deal under quite a variety of circumstances and are always pleased with the results obtained. Besides employing it as a therapeutic agent, we add it to our freshly-made paste or mucilage to prevent decomposition, we put anatomical specimens in it to preserve them, etc. Used as a gargle, diluted, in diphtheria and ordinary sore throat, its action is most satisfactory. As a dressing in ulcerations, generally, it is excellent.

TYPOGRAPHICAL ERRORS.—The *St. Louis Medical and Surgical Journal* seems to be a queer sort of journal, or, rather, its editors seem to be queer sort of individuals. They do not seem to be aware that there are such things as typographical errors. We have been exercising patience with them until patience has almost ceased to be a virtue. If they object to our method of doing, we respectfully request of them to rise and state their objections, and not annoy us any more in the manner they have been doing. We feel very sure we can vindicate ourselves against all charges. Some of them evidently have not been engaged in literary pursuits very long.

THE Trommer Extract Malt Company have changed the reading-matter of their advertisement, which our readers should observe.

THE

CINCINNATI MEDICAL NEWS.

Vol. XVII. No. 196. Old Series. | April, 1884. | Vol. XIII. No. 4. New Series.

Original Contributions.

A Case of Rupture of the Uterus.

BY G. J. C. WINTERMUTE, M. D., CELINA, OHIO.

On the morning of February 11th I was summoned in haste by a medical friend, in an adjoining town, to see his wife. I reached his home at 9 A. M., and found his wife in labor with her third child.

She was a woman 34 years of age and in robust health. I saw nothing peculiar in her case, but was informed by the doctor that his wife had been in labor for seven hours, and the pains had been vigorous from the first without intermission, and, as the breech of the child was presenting, he feared all was not right. Upon examination I found the membranes had ruptured, the os fully dilated, and that he had mistaken the diagnosis as the vertex presented, and that it was hydrocephalic, which perhaps accounted for his mistake owing to the amount of fluid within the cranium, which, in a measure, concealed the sutures and fontanelles. I at once diagnosed a second position and saw no excuse for meddlesome interference at that stage, as the mother was in good condition. I encouraged her and simply left the case to nature. The pains soon became regular with an intermission of from three to five minutes. Labor progressed steadily until 11 o'clock, when the head had engaged the outlet and was distending the perineum, which I was supporting, as in my custom, but more especially in this case to guard against a previous accident, as there had been considerable laceration at the birth of her first child, five years previous, which had firmly united; and, knowing the inelasticity of cicatricial tissue, I was particularly anxious to prevent a recurring accident.

During a vigorous pain, when I was momentarily expecting the head to burst into the world, the mother screamed and placed her hand over the left iliac region, and, for a moment, I was horror-stricken, thinking that the uterus had ruptured; and, as the pain continued very severe, I injected one-fourth grain morphia subcutaneously over the seat of the pain, which, in two minutes, quieted her, but labor ceased also. She remained quiet for fifteen minutes, when the pain in the side returned and the morphia was repeated. At the same time a messenger was dispatched to my office, five miles distant, for forceps. After waiting till 11:30 and labor pains not returning, I feared for the safety of the child, even if the uterus was not lacerated, and advised turning, to which the doctor assented. I swept my index finger around between the head and the pelvis and disengaged the head, which receded sufficient to admit my hand, on passing which, over the back of the fetus, I discovered a tumor, which proved to be a spina-bifida, from which time I had no further anxiety for the child, but still feared for the mother's safety, as the pain in the side was so great that she had been given a few whiffs of chloroform from a napkin.

I then turned and delivered the child without difficulty, which was dead and with other deformities had single talipes varus. I placed my hand over the abdomen of the mother and found the uterus contracted. I then placed my hand in the vagina and found the placenta lying there detached, which I readily removed.

All this occupied just forty-five minutes from the time labor pains had ceased. After delivery there was no hemorrhage of any consequence perceptible, and no pain of *any* character.

I remained with her for more than an hour, when I saw her dressed and made comfortable. Her pulse remained at about 80, full, soft and regular; but as she felt somewhat exhausted I ordered half an ounce of brandy, to be repeated in an hour. I left to see another patient, and on returning at 3 P. M., found her in about the same condition as I left her. She had taken some nourishment and felt rested. I remained with her till 3:30, but, before leaving the house, I again examined her pulse and found it still good. She had as yet had no pain since delivery, and no hemorrhage of any account; and, in answer to my inquiries, she smiled and said she was feeling quite comfortable, but still somewhat exhausted. Her nurse interrupted by remarking that she guessed the patient was all right, as she had laughed some and had eaten her dinner in my absence. As there had been no appearance of shock, I abandoned my apprehensions of rupture of the uterus, and congratulated myself that I had not expressed my fears to the husband and caused him needless anxiety.

Being weary, the next morning my partner, Dr. H. A. Rodebaugh, visited the lady, in answer to a summons from her husband, and found her at 7 A. M. *in articulo mortis*, and was informed that, at 5 o'clock, on the previous evening she was seized with pain, which was excruciating all night and failed to be relieved by opiates, but that she continued perfectly conscious to the last. As there had been no elevation of temperature, the cause of her death was mere conjecture.

When I first learned of her death I was fully satisfied as to the cause, and so expressed myself; and, to confirm my opinion, I asked for an autopsy, which was assented to, and was conducted thirty hours after death by Drs. Rodebaugh and Hetzler, of Celina, Ohio.

The body had been embalmed for burial 24 hours, and presented no especial features until the uterus was carefully removed and found to be completely lacerated from cervix to fundus, but no appearance of inflammatory action. The questions are, Why did not shock occur sooner, as that must have been the immediate cause of death? Again, am I subject to criticism for my mode of management of the case and for not recognizing the rupture? In turning my hand passed, with its dorsal surface, down against the interior surface of the uterus, over the laceration and in the same direction, and, of course, forced the back of the fetus against the opposite side of the uterus, which would have a tendency to close the rent and escape my notice, especially when I had enough besides to attract my attention, and, having never been a witness of such a disaster, I was illy prepared for it. Had I anticipated it I could have prevented it by craniotomy, but not by the use of forceps had they been at my command, provided the laceration proceeded from the cervix. Had I been sure that there was rupture at the time it occurred, what more could I have done, as drainage would have been of no use after such extensive laceration as to admit all the liquid to escape into the peritoneal cavity.

Translations from Our Foreign Exchanges.

Translated for MEDICAL NEWS, from the French of M. Bra, by Dr. Illowy, Cincinnati, Ohio.

AUTOMATISM.

IF we examine the material conditions that preside over the operations of the thought, even in a physiological state, we will be surprised at the great part *automatism*, fatality, has in this mechanism.

"Do we not all know," says Luys, "that the direction of our ideas (which are nothing else than old sensory impressions stored away in a state of memory) does not belong to us? We may believe that we direct them, whilst in reality we are only following them. They associate themselves by the fact of *unconscious cerebration*, the term so aptly invented by Carpenter; they group themselves, they call one another in a thousand different ways, in the most bizarre and unforeseen fashion, without that we can in a direct way prevent their evocation. Do we not know how the view of certain objects calls forth a whole series of affiliated ideas? how a simple verbal assonance will direct our thoughts into such or such a channel? One word calls another; a simple odor suffices to call forth a whole series of remembrances. Do we not all know how often we can not rid ourselves of certain ideas which possess us, and which, when the brain is very much fatigued (either by the fact of a migraine or by a transitory hyperæmia), end by acquiring a most morbid intensity and by exciting most painful cerebral suffering?

The success of certain allusions, of certain half-understood expressions, adds the same author, as when pronouncing a word we are certain it will touch a certain chord of the moral sensibility, has no other mechanism.

It is certainly these considerations which caused Lamartine to say: "I never think; my ideas think for me."

Dreams themselves are nothing else but the effects of the automatic cerebral activity. How often do we not speak unconscious words in a loud voice during the night? It is simply an automatic process. Analogous as the reflection of the spermatic ducts causes erotic dreams, as the sudden approach of a candle to our closed eyes suffices to change the current of our thoughts, as a simple current of air may make us dream that we are falling into the water, as the great heat from our bedcovers may lead us to believe that we are lying, bound hand and foot, on a hot brazier.

At times the dream is not extinguished even on waking and leaves a permanent trace of its passage.

But this is not all.

For, when during sleep, a whole territory of nerve-cells go into activity, a special state will be observed which has been described under the name of *Somnambulism*, and which is situated on the borders of mental alienation.

The somnambulist promenades around during his sleep, opens up his bed, will go and lie down with his neighbor, and performs acts, almost altogether automatic, with great precision.

A nun, one night, during an attack of somnambulism, gets up, picks up a knife and wends her way to the chamber of her superior to assassinate her. She approaches the bed; she does not see that she whom she is searching for is absent, and keeps herself at a distance, and that there is a lighted lamp in the cell. Nevertheless she approaches the bed, makes several thrusts with her knife through the coverlet, as if she were piercing thus the body of her superior. The act completed, she returns to her couch and in the morning has not the faintest recollection of what had transpired in the night; she simply believed that she had had a horrible dream.

In mental alienation proper, the automatic activity plays a still more considerable rôle, so great indeed that Mesnet has justly said: "The more I observe the insane, the stronger becomes my conviction that in the involuntary exercise of the faculties the origin of all madness must be sought for."

Automatism may manifest itself in the *intellectual domain* and remain localized therein, or it may invade the *motor regions*; we may therefore divide it into two principal groups.

1st.— *Pathological automatism — class, psychical.* — The patients are restless, they are frightened *even when they have the innermost conviction that there is nothing to be afraid of;* they can not help it. They feel *that their ideas escape them*, and that against their will they are impelled to think and say things which are entirely opposed to their real inner sentiments; "It is stronger than I am," they say.

There is a continual struggle going on within them between consciousness and the fatal elaboration of ideas.

2d.—*Pathological automatism—class, psycho-motor.*—It reveals itself by strange, often terrible characteristics: Not simple thoughts any more, but automatic acts, *irresistible impulses.*

The impulse *is a mode of cerebral activity which drives on to acts which the will is at times powerless to prevent.* It is observed in the most diverse mental affections, in anxious melancholia, in melancholia with stupor, mania, alcoholism, but above all in *epilepsy*, where it attains an extreme degree of violence.*

In a general way, impulses are observed to be of two different states.

1st.—Sometimes the acts are conscious, the patient having the perception, of movements, of unwonted acts which he accomplishes, of words which he pronounces, of excesses which he commits.

Sometimes the patients have *no consciousness* at all of their motions and actions; they accomplish automatic acts due to a veritable unconscious cerebration.

1st.—*Impulsive acts with consciousness.*—The patients experience the desire to break something, to make outcries, to gesticulate, to bite the fingers, to undress without any reason, to strike the persons surrounding them, to tear off their clothes to make prodigious jumps, or they have irresistible tendencies to commit suicide, whilst at the same time *they are not at all frenzied*; they are perfectly cool.

2d.—*Impulsive acts with unconsciousness.*—Sometimes these are *homicidal* tendencies, *tendencies to suicide*, an *impulse to steal* (kleptomanie), to *incendiarism* (pyromanie), to *alcoholic excesses* (dipsomanie). The patients of this category are for the most part under the influence of *hallucinatory* or *illusional* trouble.

In certain cases, and this is more particularly observed in epilepsy, the individual is seized with a sort of *vertigo*, a momentary, transitory obnubilation. The attempt at homicide, suicide or incendiarism, is then automatically made, as by a sort of rapid and mechanical discharge.

The impulse passes like a stroke of lightning, and there remains nothing of its passage in the mind of the patient but a feeling of vagueness. *It is impossible for him to give any account of what has happened.*

En resumé, whether the phenomena be of the psychic or somatic order, in the great number of cases it is the automatic activity, in its various degrees, that presides over the operations of the intellect, and this is unconscious cerebration. We shall find it on every page as we go along in the study of the different forms of insanity.

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* Impulses have no real separate existence; they are only epiphenomena. Entirely subordinated to the evolution of the primordial process, of which they are only an episode, they imprint upon the territory upon which they develop certain peculiar characteristics which distinguish them—the impulse of the epileptic differs from that of the alcoholic, from that of the melancholic, etc. Further on we shall revert to these distinctive characteristics.

Barley Peculiarly Adapted for Malting and Richer in the Soluble Albuminoids (Diastase, Etc.) than any Other Cereal.

Reported for MEDICAL NEWS.

ALTHOUGH barley has been employed in the preparation of malt from time immemorial, it has never been superseded for this use by any other cereal. The wisdom of its selection has been sufficiently confirmed by long experience as well as by chemical research. A comparison of barley with other cereals demonstrates its peculiar adaptation as well as its superiority for malting. Some varieties of wheat are richer in nitrogenous matter (chiefly gluten and albumen), to which wheaten flour owes its aptitude for being made into bread. Maize, or Indian corn, and oats, are also rich in nitrogenous matter (consisting in the latter principally of a substance called *avenin*). Rye approaches nearer to wheat than the other cereals in those properties which adapt it to bread-making. Barley, oats and rye contain about equal proportions of nitrogenous matter. Rye, maize and barley are equally rich in starch. Mineral matter exists in nearly the same amount in barley, oats and wheat. Barley holds a medium position with reference to all these constituents.

The superiority of barley for malting depends partly upon the peculiar structure of the grain, and partly upon the greater solubility of its nitrogenous principles. The protection afforded to the radicle (or shoot) by the husk which envelops the grain during germination and malting, is of the utmost importance. The process can go forward to the desired extent without loss by imperfect or incomplete germination. In the malting of wheat, maize, and even oats, a considerable portion is lost or damaged by germinating slightly and then perishing, leaving decayed grains in such abundance as materially to lessen the value of the malt.

The nitrogenous matter of wheat consists mainly of gluten, albumen and vegetable fibrin; that of oats in avenin, *substances insoluble in water, and which therefore can not be* *obtained by maceration or infusion in a watery menstruum.* Wheat and oats are poor in those soluble albuminoids which abound in barley. This solubility of a larger proportion of its nitrogenous matter, in water, prominently characterizes barley,* which yields its constituents generously to this convenient menstruum. On the other hand, the poverty of barley in coagulable, glutinous and albuminous matter, renders it comparatively unfit for bread-making. Thus, while barley is rich in all the principles requisite for the nourishment of man, these exist in such form that malting of the grain is alone necessary to make them soluble in water.

But a remaining fact constitutes a most important consideration. Barley is best adapted for malting because *it yields a larger quantity of diastase than any other kind of grain.* Wheat, oats and Indian corn furnish by malting scarcely sufficient diastase to convert the starch they contain into maltose and dextrine; whereas barley malt yields so large an amount of that important principle that one bushel is capable of converting not only all its own starch but that contained in from four to six bushels of wheat, oats, Indian corn or rice, into maltose or dextrine. Brewers and distillers are in the habit of availing themselves of the diastatic powers of barley malt, thus not only saving the expense of malting, but enabling them also to substitute cheaper unmalted grain in the manufacture of ale, beer, etc. The Japanese employ barley malt in a like manner, mashing it in similar proportions with unmalted rice, millet and other native cereals, converting the starch thus supplied into grape sugar and dextrine, which they make use of as substitutes for sugar and syrup derived from sugar-cane, in the manufacture of many kinds of confectionery. It is a comparatively cheap product, less sweet than articles of this class produced from cane sugar, but still of pleasant flavor, very wholesome and nutritious. It includes, of course, the mineral substances and the soluble albuminous matter of the cereals acted upon; but it contains no diastase, this principle being exhausted in the conversion of starch.

DIGESTION OF STARCH.—The digestion of starch consists in its conversion into grape sugar and dextrine. By this change starch becomes soluble and diffusible, and thereby adapted for absorption from the alimentary canal. This conversion is effected partly by the saliva and partly by the pancreatic juice, and the actual agent of the transformation is a specific ferment contained in these secretions. As regards saliva, the ferment goes by the name of ptyalin, and is held to be identical with the diastase of malt. The corresponding pancreatic ferment has not received a distinctive name—indeed, until recently, it was not thought to be a separate body; it was rather supposed that the pancreatic juice contained a single ferment which possessed manifold powers, and was able at the same time to peptonize proteids, to emulsify fats, and to convert starch into sugar. It is now generally believed that these several powers correspond to separate ferments, and that the diastatic ferment furnished by the pancreas is a distinct body from that supplied by saliva and malt. It is, however, most convenient at present to use the word *diastase* to signify a peculiar ferment, or substance, having *the power of resolving the starch molecule into more diffusible bodies of the sugar and dextrine class.*

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*Ascribed by Wœhler to the abundance of soluble phosphates in barley.

Under the combined influence of heat and moisture, as in the ordinary processes of boiling and baking, the granules of starch swell out enormously, by imbibition of water, into a mucilage or jelly-like mass. Unless starch is first changed into this mucilaginous state, it is very slowly acted upon by diastase.

So long as the salivary and pancreatic secretions are normal in quantity and quality, these juices supply sufficient diastatic power for the conversion of the starch contained in bread, potatoes, rice, and, in fact, in all kinds of amylaceous food, which constitutes so large a portion of our daily diet. We proceed, therefore, to the consideration of the means we possess of artificially aiding the digestion of starch in cases where that process is impaired through deficient diastatic power in the salivary and pancreatic juices. We know that in infants under three or four months old, the saliva has feeble diastatic power, and it is almost certain, also, that the pancreatic juice is inert. Hence it appears certain, that while it can not be said this power is wholly wanting in sucklings, it is yet insufficient for the digestion of sensible quantities of starchy food. This being so, it is obvious that farinaceous articles are unfit food for young infants, unless artificial means are used to assist their digestion.

With regard to older children and adults, we know that inability to digest starchy food is a frequent cause of diseased conditions dependent upon defective nutrition. In such cases, the largest constituent of important articles of diet (such as bread, potatoes, etc.) passes the bowels unchanged, or undergoing acid fermentation, acts as an irritant to the stomach and bowels, causing flatulence, diarrhœa, etc. But the greatest loss sustained by the system is the consequent deprivation of carbo-hydrates.

What may be termed amylaceous dyspepsia is doubtless one of the most important of the diseases of digestion and nutrition, and, unfortunately, it usually co-exists with a strong dislike as well as bad digestion of food containing fat. Under these circumstances, the nutrition of the body suffers in a striking and characteristic manner. Anæmia and emaciation soon ensue. Plastic and glandular action, constantly depending upon the forms of force generated by the combustion of carbonaceous principles, are performed in a defective manner. The normal temperature is maintained with increasing difficulty, and there is a growing indisposition to muscular action. It is indeed safe to conclude from these symptoms, more especially if the mouth be dry, as in a febrile state, during the progress of most organic diseases, after alcoholic excesses, and indeed in a multitude of morbid conditions, that, owing to deficient salivary and pancreatic diastatic power, there is consequent inadequate supply of carbo-hydrates to subserve the wants of the system.

Medical men have recognized the conditions here briefly referred to, and have had frequent recourse to that kind of food which undergoes digestion principally in the stomach. They have accordingly very much, of late years, prescribed lean beef to this class of sufferers. Some, indeed, have gone so far as to insist upon slightly cooked or even raw beef as an almost exclusive article of diet. It is, nevertheless, evident that an increased supply of albuminous food is not demanded. The relatively small supply of hydro-carbonaceous principles, derived from the splitting up of albuminous matter, is insufficient to supply the wants of the system.

CARBO-HYDRATES AS FOOD.—Carbo-hydrates, as well as hydrocarbons (fats, etc.), are only of late beginning to be estimated at their true value in the nutrition of the body. Those popular books which (following the exploded doctrine of Liebig) measure the amount of nutriment contained in any substance by the quantity of nitrogen present, create erroneous impressions on an important subject. For, while it is true that some glycogen is furnished by the splitting of nitrogenous material, modern research goes to show that the non-nitrogenous alimentary principles are not alone applied to the production of heat, but likewise to the production of other forms of force. Nitrogenous matter enters largely into the construction of the instrument of action, while the oxidation of non-nitrogenous matter supplies the motive power. That energy capable of resulting in the performance of mechanical work is produced in the animal system by oxidation, may be considered as an established fact—oxidation, moreover, of hydro-carbonaceous matter existing in the muscular tissues themselves, and derived mainly from amylaceous and fatty articles of food. It is as certain that a given quantity of hydro-carbonaceous food will produce a given amount of mechanical force, as that, by its combustion within the system, it will develop a definite amount of heat. The kind of aliment which, by oxidation, will give rise to the greatest amount of heat, will also furnish the greatest capacity of working power. Nitrogenous food is necessary to the construction and repair of tissues, but their activities are mainly due to the combustion of non-nitrogenous matter. Muscular action is due to oxidation of non-nitrogenous matter stored within the muscles, and not to oxidation of the muscles themselves; nerve action and brain work are in the same manner dependent upon the combustion of hydrocarbonaceous material.

Later investigations have incontrovertibly proved that Liebig erred in restricting the office of non-nitrogenous food to the production of heat. Through the extension of the doctrine of the conservation of energy, it has been determined that force is readily transmutable from one form into another, and that the forms of force bear a fixed and quantitative relation to each other. In the carbonaceous food we consume we find the chief supply of material for manifestations of force, whether muscular, nervous or glandular, and these various structures may, in this respect, be compared to the wick of a candle. They burn the supply of carbonaceous material in the due performance of their varied functions, so long as this is furnished in good quantity, and are themselves but slightly wasted. When, however, the fuel fails, the wick itself is consumed, as in starvation.* Carbonaceous material is no more restricted to generation of heat within the body than the use of coal ends with the production of heat beneath a steam-boiler. By the combustion of the coal, heat is produced; also motion, light, electricity.

That part of carbonaceous food not immediately required for the production of force is stored within the body, chiefly in the form of fat, which, whether derived from this source alone, from the splitting of albuminous matter, or taken primarily as food, by reason of its relatively large proportion of carbon, as well as hydrogen, destined to undergo oxidation, constitutes the ever-ready source of power. In temperate climates, at least, articles rich in carbo-hydrates constitute the principal food of man, although liberal quantities of fat are consumed in the use of meat, milk, etc. The relative quantities of carbo-hydrates and nitrogenous matter in wheaten flour (which constitutes the most useful article of vegetable food) may be assumed to represent the comparative offices of these substances in the nutrition of the body. One hundred parts of flour, from good American wheat, yield from *ten to fifteen parts of nitrogenous matter, and sixty-eight to seventy parts of carbo-hydrates.* The potato contains even a larger proportion, yielding *ten parts of starch to one of albuminous matter.*

When it is remembered, therefore, that the part enacted by non-nitrogenous food is equally important with that of nitrogenous, while the quantity of the former requisite to sustain life is far greater than of the latter, a degree of surprise is excited that it is only within a comparatively recent period that faulty digestion of starchy food has attracted much attention. The case has been far different as regards indigestion of albuminous matter. No agent capable of exciting the stomach to the due performance of its functions has been neglected. Pepsin, and various acids, are largely and effectively employed as artificial digestives. Meanwhile, deficient power in the digestion of starch had been comparatively lost sight of, and this, too, notwithstanding the fact that almost unlimited diastatic power is at our command in the diastase supplied by barley malt.†

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*Fothergill's Therapeutics.

†Roberts, in London *Practitioner.*

Selections.

The Diagnosis of Abdominal Tumors, Vesico-Vaginal Fistula; Remarks on the Use of the Forceps.

A Clinical Lecture delivered at the Hospital of the University of Pennsylvania,

BY WILLIAM GOODELL, M. D.,

Professor of Clinical Gynæcology in the University of Pennsylvania.

Reported by Wm. H. Morrison, M. D.

GENTLEMEN: The first case that I bring before you is a perplexing one, and I bring it before you for the purpose of diagnosis. I have already examined the case with a great deal of care, but I am in great doubt as to its nature. It shows the difficulty in the diagnosis of abdominal tumors. If I can not, with all my experience, tell what the matter is, how much more likely will you be to blunder? The first peculiarity about this case is that the lady has a very good complexion; her lips and tongue are of good color. She has a far better appearance than you ordinarily see in abdominal tumors. She says that four years ago she detected a swelling in the abdomen. I do not place much reliance upon these statements made by patients. Women often come to me thinking that they have a tumor, and on examination I find nothing but wind. If she had said that her physician had found the tumor, I should have placed more confidence in the statement.

This is a puzzling case, because I can not make out whether this is a cyst or whether it is free fluid in the abdominal cavity. If it were free fluid, it would constitute abdominal dropsy, and we should naturally expect to find some cause for the dropsy. I have examined the heart and lungs carefully, but they are perfectly healthy. There is no disease of the liver, although I at first thought I detected some signs of hepatic trouble. I next turned to the kidneys and I asked Dr. de Schweinitz to examine the urine. He reports "specific gravity 1022; alkaline reaction, no sugar nor albumen. In the sediment there are triple phosphates and a few octahedral crystals of oxalate of lime." There is then no evidence of organic disease of the kidneys.

Examining the tumor, you see that it does not project as cysts usually do. It is flaccid, and on percussion you can see the wave pass from one side to the other. In the cysts that you have seen, the tumor has been tense and projecting, but here we have a tumor irregular in shape, flaccid and bulging laterally. The appearances are those of free fluid in the abdominal cavity.

If this were abdominal dropsy, we should expect to find resonance or percussion in front from the floating up of the intestines. I now percuss, but all over the front there is perfect dullness. I press deeply, but can develop no resonance. This is not a feature of ascites, but it might be due to great distension of the abdomen, which is not the case here, or it might be due to inflammatory adhesions preventing the intestines from floating upward. Let us see if we can get the coronal resonance which is due to the intestines surrounding the cyst giving a crown-shaped resonance. On the right side there is no resonance. There is more over the stomach, but on the left side, in the line of the descending colon I find some resonance. The intestines may be adherent at this point.

I have carefully examined the womb. It measures 3.5 inches. It was retroverted, but I was able with the sound to raise it and make such motion that I feel the greatest assurance, although not positive certainty, that the womb has nothing to do with the tumor, unless there should happen to be a fibroid tumor. A pedunculated fibroid tumor may produce dropsy of the abdomen, and the patient retain fair health, because it is a dropsy from irritation.

I tell you candidly, that I do not know what this is; but I am disposed to think that it is a cyst of the broad ligament. I shall tell you why. These cysts are more apt to be florid; they last longer, from four to nine years; they interfere with the general health less than any other tumor; they rarely give pain; and they have alternations of flaccidity and distension. I have examined this woman in different positions, but the result was always the same. I shall now tap her, and see the character of the fluid. I first freeze the part with ice and salt and then plunge in the aspirating needle, and immediately the fluid begins to flow. I have taken care to see that the bladder had been emptied. This is a slow way to remove the liquid, but it is a safe way.

While the fluid is flowing, I shall talk a little about this subject of tapping, because it is an operation which you will have to perform. It is not difficult to do, if you observe certain rules. Other things being equal, always tap in the linea alba, because there we find the fewest blood vessels. The point of election is midway between the umbilicus and the symphisis. If the most prominent point of the cyst is to one side, it will be proper to tap at that point. In the second place, use the aspirator in preference to the trocar. In the third place, and by the way, this should have been among the first, see that the bladder is empty. There are good reasons for this rule, for the mistake of confounding a distended bladder with an ovarian cyst has often been made.

The danger from the use of the aspirator in ascites is very small, for the peritoneum has been so altered by pressure, that it is no longer so vulnerable as the peritoneum is usually considered to be. There are greater dangers in tapping a cyst, for the wall of the cyst is vulnerable, and you may have inflammation of the cyst followed by septicæmia. This has occurred in my hands. It is a good rule never to tap an ovarian cyst if you have decided to remove it, and the patient has consented. There are certain exceptions to this rule. If the cyst were so large that it pressed on the veins, giving rise to œdema of the extremities or œdema of the lungs, it would be proper, under these circumstances, to precede the operation by a tapping, so as to relieve these œdematous symptoms and put the woman in a better condition to bear the operation. If you have a polycyst, it is a good rule not to aspirate, for, as the large cyst is filled with many smaller ones, there are blood vessels running in every direction, and there is danger of wounding a blood vessel and of having internal hemorrhage. The bleeding may come from a vessel in the wall of the abdomen. If there is internal hemorrhage, which you determine by the ordinary symptoms, the best things to do are to include the point of puncture in a ligature, or to use an acupuncture needle, or to put in a hair-lip pin and throw around it a figure-of-eight ligature.

As I say, my rule is not to aspirate an ovarian cyst unless the patient insists upon it. A woman has a cystic degeneration of the ovary, she has heard of cases of recovery after tapping, and she insists upon having this tried. An interesting case occurred in the practice of a physician out west. A woman came to him with a large tumor which he diagnosed to be a cystic tumor, and told her that nothing would cure her but an operation. She had, however, heard of a notorious nostrum which cures everything under the sun and began to take it. A day or two afterwards she met with an accident which ruptured the wall of the cyst, and at once she began to pass large quantities of water which she attributed to the use of the Panacea. The result was that the tumor disappeared for several months, but it soon refilled and the doctor had to remove it by operation.

I had a case two weeks ago which shows the danger of rupture of the cyst. A lady was brought to me accompanied by her husband and physician. From her appearance, I judged that she had a malignant tumor. She had excessive pain. She was very much emaciated and had taken opium in large doses. On examination I found two tumors in the abdomen, and my diagnosis was that both ovaries had undergone cystic degeneration. She had not been so far from home for a long time. The following day she was seized with violent pain, and when her physician came he found her in a very alarming condition. She went from bad to worse, developed high inflammatory symptoms and died in a few days. Her physician wrote to me asking the cause of this inflammation. It was clearly due to a rupture of one cyst and the irritating fluid getting into the cavity of the abdomen, produced a rapid peritonitis to which the patient succumbed. If a broad ligament cyst bursts, there is not the same danger, for the fluid is more bland.

The fluid that is here escaping has not the appearance of that from a broad ligament cyst. In my experience such cysts contain a limpid, pearly colored fluid, sometimes having a greenish tinge. From the appearance of this fluid I should say that it came from an ovarian cyst, but before submitting her to an operation, for which she is prepared, it is my duty to have this fluid carefully examined. There is now some resonance over the stomach. You may ask "why can you not feel the cyst wall?" This cyst, as far as I can discover, is unilocular, and is so thin and collapsed that I can not feel its wall.

I shall apply a strip of adhesive plaster over the puncture and keep her in bed for forty-eight hours. In cases of abdominal dropsy, I sometimes put on a binder, but as a rule I do not after tapping an ovarian cyst. If the abdomen is very flaccid and the woman feels more comfortable with the binder, I use it.

VESICO-VAGINAL FISTULA, REMARKS ON THE USE OF THE FORCEPS.

The next case is a very distressing one of a woman who, as the result of a several days' labor, had a very bad vesico-vaginal fistula. She was attended by two good physicians. I have told you one thing over and over again, and I want to reiterate it. I say that there is a tendency in this age to use the forceps too frequently, and the results are laceration of the perineum and laceration of the neck of the womb. These two lesions are very frequently, although not always, caused by the use of the forceps. When I come across a very bad tear of the perineum, I am pretty sure to find that it has been a forceps case. I say that when you graduate, you will not be skillful enough to deliver a woman safely all the way through with the forceps. You will turn the head out too quickly. I myself do not feel warranted in delivering a primipara all the way through with the forceps, unless it is absolutely called for. My rule is to bring the head down to the perineum, cause it to bulge, then take the forceps off, and allow nature to finish.

There are certain cases in which it is proper to put on the forceps, and that is where the head often is engaged in the superior strait, does not descend. Under such circumstances, I should advise you, as young men, to call in a brother physician to assist you, but when you live in the country, four or five miles from any other physician, you can not do that. The country is a splendid school. It develops pluck and courage.

I have forgotten her history, so I shall ask a few questions. She says that this occurred nine years ago with her first child. She was three days and two nights in labor. That, however, does not mean anything. She might be in labor a week if the membranes were unbroken, without receiving any harm. She does not know whether the waters had come away or not, for she had convulsions. The head was impacted and the physicians had a great deal of trouble in delivering her with instruments. The child was dead. I do not know whether or not craniotomy was performed. The result was a great deal of sloughing and the formation of a vesico-vaginal fistula of large size. It has been operated on by a good physician but with poor results.

She came to me March 1st. The opening was then large enough to admit three fingers. There is one thing about these fistula which I do not think has been described, a frequent absence of menstruation. She had, in addition to the sloughing of the vagina, a tear of the perineum and as a result there was found a very sensitive cicatrix. The trouble in operating was that we could not get her under ether. Although she would be snoring, yet as soon as the speculum pressed upon the cicatrix she would straighten herself out. I have noticed this repeatedly in laceration of the perineum with some sloughing. I managed to close up the fistula, but I had to take out one stitch in order to pass a catheter. A week ago last Sunday, I operated to close the small opening, and I shall now remove the stitches. You see that she is quite fat, and I find that the worst cases of laceration occur in stout women.

I have removed the sutures and it looks as though it were a cure, but we shall have to wait a day or so to decide that. She will now be taken to her ward. The secret of success in operating on vesico-vaginal fistula is to denude the parts and coaptat them well.

The forceps should, I think, have been applied earlier in this case, but it is often very difficult to decide when to apply them. I once had a vesico-vaginal fistula occur in one of my own patients and I feel charitably towards other physicians who meet with the accident. In my case, I applied the forceps early, and with immense difficulty delivered a living child, but a few days afterwards there occurred a fistula. It was due to a projecting promotory pressing the head against the symphisis, and in this way squeezing the bladder. I felt very much humiliated when I found this fistula. This took place ten years ago, but as I look back I feel perfectly satisfied with what I did. I waited a short time, but as the head did not descend I put on the forceps. When I found that an opening had formed, I put in a self-retaining catheter and made one application of nitric acid around the surface, and every other day an application of nitrate of silver. The result was that the parts united perfectly.—*Weekly Medical Review.*

How to Remove Foreign Bodies from the Ear.

Dr. J. J. Chisolm, Baltimore, at Med. Soc. of Virginia, after suggesting that the physician should always examine for himself to see that a foreign body is really in the ear, and to discover its nature, referred to the method of examining the cavity by means of a speculum, a reflecting mirror, and a good light, etc.; he cautioned against mistaking certain natural conformations for foreign bodies. He then remarked that, usually speaking, certain foreign bodies may remain indefinitely in the ear without injury, and in many cases without inconvenience. To remove an insect, necessarily an air-breathing animal, he recommended to drop in the ear some bland olive oil, which speedily destroys its life, and to follow this up by the use of the ear-syringe with warm water, and the foreign body will soon be washed out. He cautioned against the use of forceps by the inexperienced physician. The true object of his paper was to urge upon physicians the use of the ear-syringe and a stream of warm water as the all sufficient means for removing foreign bodies from the auditory meatus. "I have never seen a case of foreign body in the ear, not tampered with by others, that I have failed to extract by the syringe." It is in the *persistent* use of this simple and innocent means that the object is finally attained. The syringe should hold from one to two ounces, and be easily worked by one hand. If the foreign body be vegetable in kind, use alcohol instead of water, as alcohol has the power of shrinking vegetable matter swollen by moisture. First, cleanse the ear of all purulent secretions, then fill the aural passage with alcohol, inserting a plug of cotton at the external meatus to prevent its escape. It can do no harm to let it remain there all night. After the soft seed in the ear has been shrunken by soaking in alcohol, its removal by the stream of water will be much expedited. When the necessity arises for the removal of a foreign body, and when these means fail of success, it is safer to send the patient to a specialist who is, at least, apt to be more dextrous in the use of ear-instruments than the general practitioner.—*News.*

Transfusion of Blood by Hypodermic Injection.

Dr. Paladini reports (*Gaz. med. Ital. prov. Venete,*) an interesting case of successful injection of blood into the subcutaneous cellular tissue of the abdomen, in a woman suffering from profuse menorrhagia. R. S., pluripara, aged forty-eight, was reduced by menorrhagia to a profound degree of anæmia. On August 4th, the loss was so great that the patient's state became most alarming. Transfusion of blood was urgently indicated; no apparatus for this being at hand, it was determined to inject the blood by means of an exploratory trocar and an ordinary syringe into the subcutaneous cellular tissue of the abdomen. The blood, taken from the husband's arm, was heated, to prevent coagulation. The trocar was inserted about four fingers' breadth to the left of the umbilicus, and pushed well in so as to somewhat break up the meshes of the cellular tissue, and thus secure room for the blood to be injected. This being withdrawn, an elastic tube was fastened to the end of the canula; the blood was taken up by an ordinary metal syringe (about ninety cubic centimetres capacity), its nozzle being made fast to the elastic tube, and injected into the subcutaneous cellular tissue, where it appeared as a lump the size of an egg. Two syringefuls were thus injected. The patient felt no pain; and after two hours the swelling had entirely disappeared. No abscess or other ill effect followed, a slight ecchymosis only for a few days marking the site of the injection. On the next day the patient was much better, and began to take and retain nournishment and sleep well; for some days before, there had been constant vomiting, and no sleep. The lax connective tissue lends itself admirably to the transfusion of blood and to its rapid absorption. The quantity of blood might be easily increased, by repeating the injection in two or three different places, to 300 or 400 grammes (about 10½ or 14 ounces). This method is free from the dangers of venous or intraperitoneal transfusion, and is most easily done.—*Med. Gazette.*

Experimental Diphtheria.

A SERIES of valuable experiments and investigations upon the subject of diphtheria have lately been published in Leipsic by Dr. O. Heubner, and reviewed in the *Centralblatt für Klinische Medicin*, No. 43, 1883. Following the lines previously traced by Treitz, Oertal, Weigert and others, who have already succeeded in the artificial production of false membranes upon mucous surfaces, he made a series of experiments with a view of producing such artificial membranes in a manner more resembling the natural processes of disease than had before been attempted. By modifying the blood supply of a portion of the mucous membrane of the bladder he succeeded in producing a form of epithelial necrosis with the formation of a definite membrane in every way corresponding to that found in diphtheria. By occluding a large branch of an artery for several hours, and then restoring the circulation, he found that the following changes were induced: Inflammatory œdema with the detachment and vacuolation of the epithelial cells, the mucous membrane becoming surrounded with an albuminous exudation which speedily coagulated. In about ten hours parts of the tissue thus affected showed signs of necrosis; in forty-eight hours these parts became still further decolorized, and stood out as yellowish-white patches upon the surface of the mucous membrane. On the edges of these patches the surrounding healthy epithelium was observed to be thickly infiltrated with blood corpuscles. This coagulation-necrosis advanced steadily, gradually attacking the whole mucous membrane of the bladder, the hæmorrhagic infiltration advancing with it. It seems more than probable that the production of simple membranous croup in the human subject may be due to a similar temporary arrest of circulation from spasmodic contraction of vessels. But from Heubner's experiments it must be concluded that the immediate cause of the local affection of the mucous membrane in diphtheria must be temporary arrest and subsequent restoration of the circulation. This, however, is only a small part of the pathology of the disease. By injecting into the circulation portions of genuine diphtheritic membrane, it was found that the poison concentrated itself especially within the artificially produced patches of membrane, and injections made with this latter membrane were found to be far more fatal in their results than were those made with the first membrane, produced by the natural processes. Further, it was found that injections of apparently healthy membrane in the neighborhood produced no result whatever. That an active poison must be at work in these cases is almost certain; but the question of its nature remains still unsettled. Whether it must be ranked with the class of septic poisons of which Koch has enumerated a series, or whether a genuine diphtheritic poison exists distinct from these, can not at present be proved, although Heubner's experiments have fairly opened a way which may eventually lead to its discovery.—*Med. Times and Gazette.*

A Case of Poisoning by Sulphate of Cinchonidine.

BY JOSEPH E. WINTERS, M. D.,

Clinical Lecturer on Diseases of Children in the Medical Department of the University of the City of New York.

A boy of about five years of age appeared at my clinic in the early part of May last, accompanied by his mother, who said to me that he had "the fever" again. I had treated this boy and other members of the same family repeatedly for various manifestations of ague. In January I had attended the boy during a severe attack of remittent fever, from which he made a good recovery under the use of sulphate of cinchonidine.

The afternoon that he came to me his temperature was 103·9° F. His spleen was enlarged, and he was very cachectic. He had the usual symptoms of ague: pain at the pit of the stomach and vomiting. He also complained of headache. His mother said that he had had fever in the afternoon and night for two days previous; that in the mornings of the same days he seemed quite well. A diagnosis of remittent fever was made, and he was ordered eight grains of sulphate of cinchonidine, in solution, every two hours, until either the fever subsided or the skin became moist.

The mother was given a two-ounce solution of sulphate of cinchonidine, which contained eight grains to the drachm. This was at 3 P. M. At ten o'clock the same evening I was asked to see the boy at the house. On arriving at the house, I learned that he had had three convulsions, in which the movements were general, but irregular. There were no convulsive movements when I saw the boy, who was lying on the sofa, apparently exhausted. His temperature was 94·6°; the pulse almost imperceptible at the wrist—in fact, but few radial pulsations could be perceived. In endeavoring to count the cardiac pulsations by auscultation, I made them about seventy-four to the minute. The skin and mucous surfaces appeared utterly bloodless; the pupils were dilated, and the child was semi-conscious. His lack of mental clearness seemed more due to bloodlessness of the brain, if one could judge, than to any other pathological condition.

The child was given his first dose of cinchonidine at three o'clock, when, by mistake, a tablespoonful was given instead of a teaspoonful dose, which was repeated every two hours until two ounces had been administered; so that, within six hours, the boy was given one hundred and twenty-eight grains of sulphate of cinchonidine in solution. None of the medicine was vomited. The boy's bowels had been in proper condition previous to and on this day. His urine was analyzed at the time, and nothing abnormal was discovered in it.

Stimulants were administered; heat and friction were applied to the surface and to the extremities. The boy remained in much the same condition, sank gradually, and died, apparently of exhaustion, at five o'clock the following morning. He was conscious up to the time of death. There were no more convulsions.

Autopsy, twenty-six hours after death.—The sinuses of the brain were filled with dark, slightly coagulated blood. There was no thrombosis of any sinus. The brain was anæmic throughout its entire extent. The left heart was contracted, not firmly, and was empty; the right heart contained a small quantity of dark-colored blood. The spleen extended about one inch below the free border of the ribs, and was somewhat enlarged in all directions. It was unnaturally firm, and its capsule was considerably thickened. All the other organs of the body were healthy.

It will be seen that the patient had been treated for the same disease before by means of cinchoidine, on which occasion it had a good effect. The fatal termination on the last occasion was evidently due to poisoning by the drug.—*N. Y. Medical Journal.*

Albuminuria vs. Bright's Disease.

A FEW years ago, when albumen was detected in the urine, a diagnosis of Bright's disease, and a very gloomy prognosis was the consequence. Albuminuria and Bright's disease were usually regarded as but different names for the same disease, for a serious degenerative disease of the kidney. Now, all is different, and while the majority of physicians realize that albuminous urine does not necessarily imply kidney disease, yet there is a tendency among many, in their practice, to ignore this fact, and oftentimes to give a hasty diagnosis and prognosis, based upon the presence of albumen, and which the subsequent history of the case fails to substantiate.

Albuminuria may be the result of many causes, among which, for the purposes of illustration, may be cited a temporary congestion of the kidney, as from suddenly plunging into cold water (for a distinguished English authority has recently stated, that he believes that if the urine were examined immediately after coming out of an ocean bath, that of nearly every one would be found to contain albumen, a transient albuminuria being produced by action of the cold water on the body, determining the blood to, and causing a temporary congestion of the kidneys), faulty digestion, by which according to Semmola, the albumen of the blood, instead of being nutritious, is excrementitious, and is removed by the kidneys. These two instances will suffice to point the statement with which, as has been said, we are already familiar, that albuminuria does not necessarily imply Bright's disease. What then, you may ask, does indicate degenerative kidney disease? We must answer, that the diagnosis of Bright's disease is, to-day, one of the nicest problems in diagnosis that the physician can have presented to him. There are no absolutely pathognomonic signs, since all of the usually accredited symptoms may be present when the disease is absent. We can, however, in very many cases form a fairly accurate opinion; but it would take much more space than we can afford, to clearly elucidate this question. In view of the increasing prevalence of this disease, of its insidious nature, of the difficulty of diagnosis, and of its subserviency to hygienic laws, we know of no more important reading for the general practitioner than a good, recent work on this subject, for the views of to-day are altogether different from the views of ten years ago. The point that we wish particularly to emphasize, and to do so we will repeat, is that albuminuria does not mean Bright's disease, and that he who makes his diagnosis solely on this symptom will be repeatedly doomed to disappointment.—*Med. and Surg. Rep.*

Salicylic Acid in Cerebro-Spinal Meningitis.

Eds. Med. and Surg. Reporter:

Gentlemen: In your journal of March 8th, I notice a comment on the use of salicylic acid in treatment of cerebro-spinal meningitis, by Dr. D. C. Ramsey, which prompts me to give my short experience with the remedy in that dread disease.

February 20, 1883.—I was called to see a very acute and severe attack of cerebro-spinal meningitis. The patient was a German boy, ten years of age; good constitution, strong and healthy. With quinia, bromide of potassium and gelsemium, I reduced the high fever in twenty-four hours; but the intense pain and suffering still remained. Having had good success with salicylic acid in acute rheumatism, the thought occurred to me: Why will it not be good in this case? Having never heard or read of salicylic acid being used in cerebro-spinal meningitis, I was a little careful in beginning the use of it. But thinking my patient would surely die any way, I determined to try it; and with from ten to twenty grain doses every six hours, I controlled the pains and gave my patient comparative ease. The rigidity of the muscles of the neck and back became less marked, and at times completely relaxed.

Fearing serious results from too prolonged administration in the young subject, I suspended the use of it, and immediately all the pain with intense suffering returned. Again I gave the salicylic acid, and my patient got quiet and slept for hours. I repeated this several times in the course of two weeks, with the same results. In the meantime, Dr. B., a very eminent physician, with an extensive experience in cerebro-spinal meningitis, was called in consultation. He marveled at the relief that the salicylic acid gave, but did not altogether approve of its administration. Nevertheless, I continued to give it at intervals, as it seemed to give more relief and do more good than anything else I could give, or rather did give.

He made a complete recovery in about twelve weeks, without any of the bad consequences that generally follow a majority of the severe cases of this disease.

The frontal headache, noises in the ears, etc., claimed by some from the use of salicylic acid, were not observed in this case, but *vice versa*. When he was screaming loud enough to be heard into the street, with pain in the head and noise in the ears, a full dose or two of salicylic acid would calm him down and give him some rest.

I will also mention that the quantity of urine voided when he was taking the salicylic acid was twice as much, or nearly so, as when he was not taking it.

Unfortunately, I took no notes in this case, consequently can not report it as minutely as I would like to, but hope to learn and hear more of this remedy in the future.

J. Chewning, M. D.

Renault, Ill., March 13, 1884.

On the Treatment of Fractures of the Patella by the Plaster-of-Paris Splint.

The President, Dr. Wier, asked, in presenting Dr. Little's paper for discussion before the New York Surgical Society, on the above subject, as reported in the New York *Medical Journal*, what experience, if any, had been obtained by the members of the society in the treatment of recent fractures of the patella by aspirating the joint for blood effused within it, which had been said to be one of the causes of separation of the fragments. Mr. Heath, of London, and other surgeons, had spoken of this method as being serviceable. In the recent discussions which had taken place in Great Britain, arising from Sir Joseph Lister's notable paper on fracture of the patella, the point had been made that one of the reasons why bony union did not take place in fracture of the patella was that little fragments of fibrous tissue were caught between the ends of the broken bone. Macewen, of Glasgow, also alluded to this fact, having proved it in one or two dissections. If aspiration allowed the fragments to be apposed, it would seem to be sound surgical practice, in order to get rid of this small amount of interposed fibrous tissue, to rub the fractured surfaces briskly together for a few moments before applying a splint.

Dr. H. B. Sands doubted whether, in average cases of fracture of the patella, marked superiority could be claimed for any single method of treatment, all methods being more or less imperfect. The treatment recommended by Dr. Little resembled very closely the common one, which consisted in placing the limb upon a straight posterior wooden splint and applying straps of adhesive plaster obliquely above and below the fragments. He had for many years believed that the extent of primary separation of the fragments depended mainly on two causes, namely: laceration of the fibrous tissues, and distension of the knee joint with blood or inflammatory effusions. He deprecated the premature and forcible attempts often made to approximate the fragments while the joint was distended, believing that such treatment was liable to increase their separation by causing further effusion. He quite agreed with Dr. Little in recommending that, until the subsidence of the swelling, treatment should be restricted to rest of the limb in an extended position, the use of some evaporating lotion, and, when necessary, moderate pressure by means of a flannel or elastic bandage. He remembered having read, many years ago, of cases treated in St. Bartholomew's Hospital by simply placing the limb at rest in a straight position upon a posterior splint. Approximation of the fragments occurred spontaneously when the swelling subsided, and very good results were obtained, the uniting medium, although ligamentous, being generally very short. It seemed to him that by the method recommended by Dr. Little, although good results would often be obtained, there might sometimes be found a liability to a tilting of the fragments. Dr. Sands had endeavored to obviate this difficulty by resorting to a method practiced by many surgeons, in which strips of moleskin adhesive plaster, attached to the limb above and below the seat of fracture, were brought together and fastened by a buckle directly over the broken bone. Of course, it was presumed that, when Dr. Little spoke of approximating the fragments, he meant an approximation of the upper to the lower fragment, as no amount of force was capable of stretching the ligamentum patella. Dr. Sands had also, in some cases, resorted with advantage to Malgaigne's hooks, the points of which were prevented from penetrating the skin by the interposition of several layers of thick adhesive plaster. This practice, he believed, originated with the late Mr. Spence. He was a little doubtful whether, in bad cases of fracture of the patella, attended with great separation of the fragments, any treatment would produce good results short of a surgical operation. He was convinced, however, that, in a majority of cases, many forms of apparatus could be used which would enable the patient to obtain a useful limb.

Dr. Bull said, with regard to the plaster-of-Paris bandage as distinguished from the plaster-of-Paris splint in the treatment of this fracture, that he thought Dr. Little had expressed himself adversely to the plaster-of-Paris bandage a little too strongly. It had certainly been thoroughly tested in New York hospitals, and was now generally used in a number of institutions, and he thought the results obtained did not justify the expression that it might be justly condemned. With regard to this application in the treatment of fracture of the patella, it was the only apparatus which he had used. He had regarded it as the simplest form of apparatus that would keep the knee absolutely still, and one which was more easily applied than the apparatus described by Dr. Little. Before applying the plaster bandage he always drew the upper fragment down as far as possible with the hand, and held it there by means of a single strip of adhesive plaster, while a second strip served to steady the lower fragment. He had met with a good many cases of fracture of the patella during the last six or seven years, and he had yet to see one in which the upper fragment could not be approximated to within one-fourth to one inch of the lower fragment within a certain time. He said *a certain time*, because this period varied a great deal according to the quantity of effusion into the joint. He had seen two cases in which the upper fragment could be drawn down directly, and there the plaster splint was applied within a few minutes and allowed to remain until the bone had united by ligament. He had not seen any cases in which the union was entitled to be considered as bony union.

It had been suggested some years ago that the disappearance of the effusion could be accelerated by aspiration, and Schede had proposed puncturing, washing the joint out, and then treating the puncture with antiseptic dressing. Dr. Bull had had no experience with the latter method, but he had tried aspiration in two cases. In both he aspirated the joint twice, because the first operation did not facilitate the approximation of the fragments, although a small quantity of bloody serum was withdrawn. The second aspiration was about as futile as the first. He had almost reached the conclusion that the best method was to allow the effusion to subside, aiding absorption only by firm compression, such as could be made by a firmly applied cotton dressing over the entire limb (laid on a Volkmann's splint). He had resorted to that measure where there was a good deal of effusion, and at the end of a period varying from five to ten days the upper fragment had been approximated within one quarter to one inch of the lower one with great facility. With such a ligament, if not stretched by flexing the joint too early, the joint functions would be satisfactory.

It seemed to him that no one who had had experience in the use of the apparatus recommended in Hamilton's "Surgery" would wish to use it a second time, because it required constant attention, and the bandages must be renewed every day, or at furthest every second or third day. While he believed the apparatus described by Dr. Little was certainly safer for surgeons not experienced in the use of plaster of Paris in the shape of a bandage, he thought the plaster bandage safe enough for any man who had had reasonable experience in the application of bandages in general to the extremities.

Another point of interest in connection with fractures of this bone was the liability of the opposite patella to suffer from a similar injury. He had seen a number of cases of this kind. In all these the fractures were caused by muscular action. This was generally attributed to the greater strain upon the sound bone and the greater liability of the patient to fall. In two cases which had come under his notice the patients had told him that they had suffered a certain amount of pain in each patella before the fracture took place. He had never seen a patient in whom the fracture was caused by direct violence who afterward suffered from a fracture of the other patella. It was possible that the true explanation of these cases was that they were caused by an abnormal condition of the bone at the time of fracture. The slight amount of force which caused the fractures in both of these cases, and the pain in the bone felt before the occurrence of the injury, would seem to point in that direction.

Pott's Disease, as Illustrating the Principles of Diagnosis.

BY C. E. WEBSTER, M. D., CHICAGO.

We make the following extracts from a paper published in a recent number of the *Chicago Medical Journal and Examiner:*

To illustrate these principles, let us consider the early recognition of Pott's Disease.

A glance at the patient may be sufficient for the provisional or snap diagnosis. You see a sickly child with an anxious expression of face, moving cautiously, seeking support from external objects, and carrying its trunk erect. Throw some object on the floor for the child to pick up. It stoops by flexing the legs, but still carries the body erect and steady, as though the spine was made of glass, and it was afraid of breaking it. The seeking of support and carefulness respecting jar or strain of spine, are the most distinctive features, and may be variously modified according to the age of the patient, the location and acuteness of the inflammation, and other circumstances of the case.

With the first glance you have recognized spinal caries, but in so serious a matter an opinion should not be given until the exact diagnosis is reached, which necessitates a history of the illness and a thorough examination. If unwilling to assume the responsibility, or unable from press of business to take the trouble, send the case to one who will, for you have before you for treatment a patient destined to live in spite of the grossest negligence, but whose future happiness and usefulness alike depend upon the care and fidelity of some one who for years shall enforce those simple rules of life, and adapt with care and accuracy the necessary appliances.

I can well assure you, gentlemen, that highway robbery were a much more honorable mode of obtaining wealth than by careless diagnosis, procrastinating measures, or insufficient treatment, to rob a child of the slight chance of reaching that normal physical development, which is a prime requisite for maintaining his physical, mental and moral symmetry.

The history of the case will vary according to the variety of the disease. It is not intended to give a classification of these varieties; therefore it will suffice to mention all the symptoms likely to occur, premising that the absence of symptoms, or the inversion of their order, does not preclude the possibility of spinal caries.

A prodromal period, or period of incubation, is to be expected. During this stage, which may date from sickness or injury, or may arise without any assignable cause, and be of several months' duration, the patient shows an indifference to his ordinary amusements and an unnatural fretfulness. He may become awkward in his movements, stumbling in his gait, or assume unlikely attitudes. There may be constitutional symptoms, as loss of appetite, anæmia and a rise of temperature. There may be nervous symptoms suggestive of paralysis, as weakness, numbness, or tingling sensations in the lower extremities, with irritability of the bladder. If the disease is high in the column, gastric irritation, with a sensation of constriction of the chest. If upper cervical, difficult deglutition, choreaic movements of muscles of the neck, numbness of the arms, and laryngeal-cough, or a choking sensation.

Pain is one of the most unreliable of all the symptoms. It is generally located anywhere, rather than at the seat of the disease, and many patients are entirely free from it. It is thought to be caused by the irritation of the spinal nerves at the point of their exit from the foramina, and is referred to the ultimate termination of those nerves. When it occurs it may be constant, if local; intermittent, if remote from the spine; and be increased by fatigue or sudden jar. Acute pain is suggestive of a suppurative inflammation, while a dull ache is more characteristic of dry caries. The location of the pain indicates the location of the disease. If thoracic, the disease is cervical. If in the abdomen and lower part of thorax, the disease is thoracic; while, if through the thighs, the disease is lumbar.

A satisfactory history of the case having been taken, the patient is to be stripped and inspected. Flexion of the spine is avoided; and a constant effort made by the patient to support himself. He leans upon the furniture, rest his hands on his thighs, or lies across some object. His movements are constrained in order to avoid jar; he shuffles in his gait. From reflex muscular spasm there may be a partial flexure of the thighs, and a local stiffening in the portion of the spine affected. Torticollis may occur. The head may be thrown back, and the shoulders raised. The respiration may be grunting in character, with limited motion of some of the ribs. The first evidence of the location of the disease visible to the eye may be a slight flattening of the normal curves of the spine, with stiffening of the affected part, an indication of little value in young children when the curves are not developed. There may be a slight bulging, or a slight lateral angle in the line of the spinous processes at the diseased point, and finally, as the commencement of the deformity, there is the formation of a knuckle produced by the tilting up of the spine of the vertebra whose body is most eroded.

Follow the inspection by a physical examination to establish the diagnosis and locate the disease. Let the patient jump down from a slight elevation, as a low stool. This concussion may produce a cry of pain, a slight confusion of ideas, the child looking surprised, or even a fall. Another method of producing the same result is to press down on the head and shoulders, producing a cry and muscular spasm.

These are both rather dangerous experiments. Rubbing the back briskly with the knuckles makes the vertebral spines stand out in red spots. This may assist in detecting any displacement. Pain may be produced at the point of disease by percussion, firm pressure, compression of the chest, crowding the heads of the ribs against the diseased vertebra, a piece of ice or a thimbleful of hot water passed down the back; and, lastly, by lateral flexion of the spine, the patient lying on his face, and the body being grasped by the pelvis and shoulders. If, with the patient standing erect, the palm of the hand be placed against the suspected region, and then the spine bent in various directions, any local stiffening can be detected, the neighboring healthy parts being felt to move. The heat of the inflammation can sometimes be detected by the hand or by the surface thermometer. There may be also slight diffuse swelling. If the patient has pain of any sort, impeded respiration, or any uncomfortable sensation, lay him across the knees, on a table, or place him in a spiral swing and make firm gentle extension or partial suspension. Observe if his symptoms are relieved. If he gives a sigh of relief and breathes freely while there is a cessation of his pain, and if the reverse of these maneuvers, by pressing the diseased bones more closely together, aggravates his symptoms, the diagnosis may be considered as fully established, and a plan of treatment adopted.

There are cases where the first symptom noticed is the knuckle of the commencing deformity, and others where paraplegia or abscess may occur without deformity. In obscure cases where the direct diagnosis is difficult, or in any case where especial accuracy is desired, a table for differential diagnosis will be of service. Error in case of some of the diseases mentioned is much too common, and an occasional reference to such a table, though it be far from exhaustive, will be a valuable aid to the memory.

Theories of treatment and facts of general science can be stored in text-books; they may be held in memory, or, when needed, sought by reference, as is most convenient; but it is the duty of the student, ere he becomes a practitioner, to become at least tolerably expert in the snap diagnosis of common diseases, if not invincible in exact diagnosis.

How are these powers to be acquired? By only one process—by the study of disease; by noting the gross appearance of disease as well as its most minute features; by clinical practice, supplemented by careful reading, and by acquiring the greatest possible proficiency in all those methods of physical exploration, without which scientific medicine would be an impossibility. Many a young graduate enters the sick-room of his first patient with trembling and abject fear. He has learned to auscultate and percuss with an instructor at his elbow, and to listen by the bedside in the hospital to an exact description of a patient's symptoms, but to interrogate and examine a patient with a view to identifying his disease and relieving his sufferings, is a thing to him as strange as were mounted horsemen to the American aborigines.

At the commencement of one's course, if he could learn the practical duties of a nurse and accustom himself to attendance on the sick, he would have done far better preliminary work than if he had mastered every department of natural science, for then the clinic would be real practice, the didactic lecture an illumination of intelligible pictures and not a weird phantasmagoria of the unreal. While the work of pathology would become the survey of old battlefields, the study of the historic part which is to fit him for coming victories.

In conclusion, let me quote my honored teacher in anatomy, Dr. Oliver Wendell Holmes, who, from the eminence attained by a life of philosophical labor, sends down this clue to guide the student groping among the underbrush of routine study: "I would not undervalue the branch I teach. I recognize the incidental importance of all the subsidiary branches which form a part of the curriculum of this and other schools. Do full justice to these, or you will not, probably, do justice to your more immediately practical studies. But your hardest study must be at the bedside. To go hastily from the library of old books and the laboratory of new experiments to the bedside of disease, is imitating the presumption of those rash profligates who, as Thomas Barton says, think they can take a 'leap out of Delilah's lap into Abraham's bosom.'"

New York Academy of Medicine.

Locomotor Ataxia and Syphilis.—Dr. Leonard Weber read a paper on this subject, in which he first reviewed the general statistics and the opinions of authors concerning the possible connection between locomotor ataxia and syphilis.

The percentage of cases of locomotor ataxia in which syphilis was present, according to different authors, varied greatly; commencing from below 18 per cent., we had 18, 20, 21, 70, 80, 88 and 91 per cent. The two latter numbers were those of Erb. Some degree of variation in statistical figures could easily be accounted for, but such as existed here threw doubt upon the value of this method in determining the ætiological relation of syphilis to posterior spinal sclerosis. Pathological observations had not definitely proved this relationship. Dr. Weber thought it not improbable that in constitutional syphilis the irritation of the syphilitic poison might start such an inflammation as would lead to the lesions which had been found in posterior spinal sclerosis when other conditions were favorable for its development. He himself had found syphilis as an ætiological factor less often than several other conditions. The most common was rheumatism. Masturbation in early youth, and continued for some time, exerted a very baneful influence upon the nervous system in both boys and girls, and laid the foundation not only for so-called nervous affections, but for organic disease. The author had had a few cases of locomotor ataxia in the history of which masturbation in early youth was found to have been a prominent feature. Spinal tabes, from a pathological and a clinical standpoint, was rather a protean disease. So far as his own observations went, in those cases in which there was also a history of syphilis, benefit was derived from antisyphilitic treatment, and in some cases the benefit was quite marked, but there had not been a complete cure in any case. Authors, however, had reported a few cases in which the symptoms entirely disappeared under antisyphilitic treatment. In cases in which a syphilitic history was present, the prognosis, so far as some degree of improvement in the symptoms was concerned, was usually better than in other cases, but the therapeutic results even in such cases had fallen far short of the anticipations of the positivists.

Dr. Weber's experience with syphilis had convinced him of the importance of taking the disease early in hand, and of following up the treatment persistently for years, if the individual wished to escape the tertiary effects of the disease, and, among others, the baneful influence which it often had upon the cerebro-spinal system. When a syphilitic history was present in a case of tabes, mercury should not be given by the mouth, but by inunction, the latter method being far more efficacious and speedy in its action. The following statistics were given, based upon his experience with syphilis: The whole number of cases treated was one hundred and thirty-four, of which number one hundred and fifteen were in men, and nineteen in women. None of them were under observation less than four years, and most of them eighteen to twenty years. The details of one case were given, the only case which he had ever seen in which there was a distinct history of syphilis occurring twice in the same individual. The last initial lesion occurred five years after the first. Of the one hundred and thirty-four patients, eighteen, or 13·5 per cent., had, up to the present time, presented symptoms of specific lesions of the cerebral nervous system; eight of the eighteen, of the brain alone. Six of the eight were men, two were women. Five cases were of the brain and spinal cord combined, all in men. Five of the cord only, four in men and one in a woman. Two of the eight patients who had syphilis of the brain alone died of cerebral symptoms. The other six were still alive, but not cured. Of the five with syphilitic affection of the cerebro-spinal axis, two succumbed to the disease; three were still alive. Of the five with spinal syphilis, one, a woman, died of syphilitic paraplegia; four were living, and had been relieved after treatment.

Of tabes he had records of seventeen cases. The first case was a typical one of locomotor ataxia. There was no syphilitic history. The second was a typical case of tabes involving the brain; there was a history of venereal excess, and syphilis was suspected. In the third case there were rheumatic influences, but absence of syphilis. In the fourth case there was typical tabes, but absence of syphilis. In the fifth case the patient contracted syphilis after having had tabetic symptoms many years. Rheumatic influences were the most important in the ætiology. In the sixth, a typical case of tabes, there had been venereal excess; syphilis suspected; there were rheumatic influences. The seventh was an atypical case, with a history of rheumatic influences, but not of syphilis. The eighth was an atypical case, early masturbation being a presumable cause; there was no syphilis. The ninth, a typical case, ended in death from cardiac disease. The cause was early and long-continued masturbation; there were rheumatic influences, but there was no syphilis. The tenth, of the spinal type, was caused by venereal excess. There was no syphilis. The eleventh, atypical in form, was of the spinal type. There were rheumatic influences, but there was no syphilis. In the twelfth, an atypical case, there was no syphilis, but probably venereal excess. The thirteenth was a typical case of the lumbar type; syphilis played the most important, perhaps the only part. The patient improved promptly under antisyphilitic treatment. In the fourteenth, an atypical case, there were none but rheumatic influences. In the fifteenth, a slowly progressive case of typical lumbar type, there had been syphilis twenty years before, and venereal excess for many years; improvement followed the use of galvanism and hydropathy. The sixteenth was a typical case of tabes; there had been early masturbation, and afterward prolonged physical exertion, but no syphilis. Improvement resulted from galvanism and hydropathy. The seventeenth, a typical case of tabes involving the entire cerebro-spinal system, terminated in dementia paralytica, of which the patient died. There was an undoubted history of syphilis.

The author drew the following conclusions: *First.* There was not sufficient evidence to show that syphilis might be the direct cause of a typical form of locomotor ataxia; in other words, of posterior sclerosis of the cord.

Second. There was proof, and plenty of it, that syphilis produced certain lesions in the cord and its meninges as surely, if not as frequently, as in the brain; that these lesions might be, and often were, followed by symptoms of tabes, and that they were generally relieved by prompt and energetic specific treatment, but rarely cured.

Third. Experience had shown him that the tendency of the syphilitic virus to produce lesions in the nervous centers occurred the sooner the less its course was interfered with by judicious and long-continued antisyphilitic treatment. Older cases were more apt to develop neuroses than those of recent date.

Fourth. As shown by all observers, after syphilitic lesions of the cerebral nervous system were once established, they might often be relieved, but seldom, if ever, cured, by specific measures. Thus we had reasons in cases of syphilis for insisting upon long-continued and timely treatment, for keeping accurate and judicious watch over the patient, and for attending to specific symptoms as early as possible.

Fifth. The inunction treatment with mercury in fresh cases of syphilis was the best means of reducing the disease to an early and harmless latency.

The President said that, for the purpose of bringing out some remarks on certain points, he would venture to detain the audience a few minutes by referring to three cases which had come under his care, and which were very vividly brought before his mind by the paper of the evening. Although the author had inferentially shown the value of therapeutic results in throwing light on the pathology, he had not emphasized this point in such a way as, to the President's mind, it had been emphasized by personal observation, especially in another class of disease. In brief terms he would mention three cases in which the therapeutics results had led him to believe, and to feel a strong conviction, that the locomotor ataxia was the result primarily of syphilitic poison in the system.

The first case occurred in 1873, in the person of a young man, unmarried at that time, who sent for him on account of what he called rheumatism. He had been gradually finding that he could walk with difficulty, and he suffered from severe pains in the ankle joints—symptoms which gradually increased until he was unable to walk. At last there was complete paraplegia—entire loss of motion and sensation in the lower half of the body—and paralysis of the bladder and rectum. While he had been exposed to venereal trouble, there was no history of syphilis. Syphilis being suspected, however, fifteen-grain doses of iodide of potassium, with a sixteenth of a grain of corrosive sublimate, were given, the iodide being gradually increased until two drachms were taken daily. Within two months the patient began to regain control of the extremities and of the bladder and rectum; after two years he considered himself in excellent health and got married, and had remained healthy since until very recently, when he had bronchitis, and suffered, as was stated, a good deal from his old rheumatism.

The second case was that of a man of fifty-five years, who had had syphilis in early life, but had remained in good health until the ataxic symptoms began to develop. He was put upon antisyphilitic treatment, and recovered from the ataxic symptoms.

The third case was that of a surgeon in the late civil war, who two years ago began to suffer from difficulty in locomotion, and finally from paralysis on the left side. He denied having had primary disease, but, being thoroughly convinced that his condition was due to syphilis, Dr. Barker gave iodide of potassium and corrosive sublimate, and, as in the other cases, the incidental treatment which symptoms might demand. At that time there was paralysis of one side, with inability to articulate and disturbance of the mind. The rapidity of recovery was marvelous; within one month he could walk, the appetite returned, he gained flesh, the mind cleared up, and he was now apparently well. It would be evident that the President referred to cases in which there were symptoms of locomotor ataxia, without his attempting to draw a distinction as to types of the disease.—*New York Med. Jour.*

Malarial Poisoning in a New-Born Babe.

DR. WILLIAM T. TAYLOR reported at a meeting of the *Philadelphia Obstetrical Society*, March 6th ult., a case of this sort, as follows:

We have frequently observed fevers of a malarial type in very young children, in some even during the first year, which were ushered in by a convulsion or other prodrome, without a rigor, as occurs in older persons, and their character is only recognized by a repetition of the attack in a day or two. But the youngest subject of this disease which I have met with is the following case:

Mrs. A. R., during her second pregnancy, was affected with malarial fever, and, although she was then residing at the seashore, was obliged to take occasional doses of quinine to control it. She returned to her city residence at the end of the season, but continued using quinine from time to time until the end of her utero-gestation, which was completed in November last, when her babe was born. Her labor was natural and easy, and she had no unfavorable symptoms. The child appeared healthy, was of good color, but was smaller and feebler than her first-born at its birth. As she had a good supply of milk, it soon drew the breast quite vigorously. About one week after its birth the nurse called my attention to "weak spells" which it had occasionally, accompanied by coldness of the skin, a feeble circulation, and prostration, which continued for fifteen or twenty minutes, and were followed by a clammy perspiration. By the application of heat to the body, and giving it a little brandy and water or other stimulant, it would revive. I observed that these "spells" had a periodicity, occurring every two or three days, and, considering them malarial, I gave the mother quinine and valerianate of iron, which, acting therapeutically through the milk, soon caused the "spells" to cease, and the babe became well and fat. I also gave it small doses of the elixir of cinchona for several weeks. The child must have contracted this disease while *in utero* through the placental circulation, for, being born in a perfectly healthy locality, it was not exposed to any external malarial influence. When labor began, the quinine was stopped, and was not resumed until the condition of the child required it, when it soon showed its antiperiodic action by completely arresting these "weak spells," for now the child is perfectly well.—*New York Med. Jour.*

Hysterical Periodical Rigors.

Dr. Gaspar Griswold related the history of a lady (New York Clinical Soc.) who had had regularly, for a number of months, a chill every Tuesday evening. It was preceded by headache and aching in the bones, and came on between twelve and one o'clock. The chill was severe, was followed by a fever lasting three or four hours, and then a profuse sweat. The temperature had once been taken on the morning following and found to be 104° F., and on another occasion 102.5°. A little malaise, however, was the only thing present, and this passed off in a day or so, and the patient was well until the next Tuesday night. On the supposition of malaria, quinine was given in full doses preceding the expected attack. Warburg's tincture was also tried. Nothing had the slightest influence. Pilocarpine hypodermatically was next tried just as soon as the premonitory signs of the rigor began to manifest themselves. The attack was aborted by this means, though it was sometimes necessary to give as much as three-fifths of a grain before the effects of the drug were produced. On the following week the paroxysm recurred regularly in spite of it. The pilocarpine was kept up for nine successive weeks without any permanent improvement. Bromide of potassium in large doses, once as much as ℥ ss. a day, was several times combined with the pilocarpine, but without any change. This had been done because he had become convinced of an hysterical element in the case, although the patient showed no manifestations of hysteria in the interval. At the time of the attack there were constipation and scanty urine—on one occasion slight retention for twelve hours. He raised the question whether it was possible for a patient to have a temperature as high as 104° F. from hysteria alone, as he was now convinced of an hysterical element in the case.

Dr. Winters had recently read a report of a series of cases in which periodical chills had occurred. Some were found to depend on gall-stones, some on renal calculus, others on the most diverse causes. None of them had recurred with such regularity and so long as in the case reported.—*New York Med. Jour.*

Aphasia and Aphemia.

THE *Lancet* of March 1st gives two well-marked cases where the distinction between these two affections is well marked. The substance of the aphasic case is as follows: A woman 52 years of age, previously in good health, was found on November 20, sitting on the bed unable to speak or move her right arm or leg. For five days she did not understand anything, though there was apparently no loss of consciousness. On December 22, when brought to the Hospital the following was recorded: Intelligent, much distressed at her present condition, complete motor paralysis in right arm and leg; sensation in both increased. No facial paralysis. Can open her mouth, but can not protrude her tongue when told to do so, but makes the effort. She can not say "yes" or "no," in answer to any question, nor does she even shake or nod her head. She is, however, constantly saying either, "Oh, dear me," an expression she constantly used at home, or "pretty Kitty," an expression never heard at home. She does not say one or the other when told to do so. Her articulations and vocalization—confined to these words—are perfect. She will make no attempt at writing with her left hand and she never reads. If several numbers are written down she can point to the one representing her age. No history of syphilis; the heart, arteries and lungs appear normal. Sphincters under control.

A fortnight after admission she said on one occasion to the nurse, referring to the bed, "make it," and she occasionally shakes her head in negation. Condition otherwise unchanged. The case presents no loss of articulation (aphemia), no loss of voice (aphonia), no mere loss of memory (amnesia), but there is a complete loss of intelligent speech, spoken or written (aphasia).

Aphemic case. Man aged 22. On the morning of December 12, was suddenly seized with loss of speech and admitted to hospital same day. He did not lose consciousness; has right-facial paralysis, principally of the lower half of the face; can protrude the tongue readily, which is deflected to the paralyzed side; has slight paresis of the right forearm and leg. In answer to every question he can only give a sort of husky grunt; can not utter a single word. Had been hoarse for a fortnight before the attack, but the voice is now much improved (we suppose this means that the "grunt" is less husky). The application of the Faradic current has been to the vocal cords. The patient is very intelligent and nods or shakes his head, or writes his answers. No specific history can be obtained. He is not aphasic, for, though he can not articulate, he can speak intelligently in writing; he has, however, totally lost the power of articulation, though there is no paralysis of the necessary muscles and no difficulty in deglutition; he is therefore aphemic. Three weeks from the above entry his condition is unchanged.

The Memory of Ants.

THE general fact that, whenever an ant finds her way to a store of food or larvæ, she will return to it again and again in a more or less direct line from her nest, constitutes ample proof that the ant remembers her way to the store of food. It is of interest to note that the nature of this insect-memory appears to be identical with that of memory in general. Thus, a new fact becomes *impressed* upon ant's memory by repetition, and the impression is liable to become effaced by lapse of time. Sir John Lubbock found it necessary to *teach* the insects, by a repetition of several lessons, their way to treasure, if that way were long or unusual. With regard to the *duration* of memory in ants, it does not appear that any direct experiments have been made; but the following observation by Mr. Belt on its apparent duration in the leaf-cutting ant may be here stated: In June, 1859, he found his garden invaded by these ants, and on following up their paths he found their nest about a hundred yards distant. He poured down their burrows a pint of diluted carbolic acid. The marauding parties were at once drawn off from the garden to meet the danger at home, while in the burrows themselves the greatest confusion prevailed. Next day he found the ants busily engaged in bringing up the ant-food from the old burrows and carrying it to newly formed ones a few yards distant. These, however, turned out to be intended only as temporary repositories; for in a few days both old and new burrows were entirely deserted, so that he supposed all the ants to have died. Subsequently, however, he found that they had migrated to a new site, about two hundred yards from the old one, and there established themselves in a new nest. Twelve months later the ants again invaded his garden, and again he treated them to a strong dose of carbolic acid. The ants, as on the previous occasion, were at once withdrawn from his garden, and two days afterward he found "all the survivors at work on one track that led directly to the old nest of the year before, where they were busily employed in making new excavations. . . . It was a wholesale and entire migration." Mr. Belt adds, "I do not doubt that some of the leading minds in this formicarium recollected the nest of the year before, and directed the migration to it."—*George J. Romanes.*

THE REMARKABLE SUNSETS.—At a recent meeting of the French Academy of Sciences, M. Angot drew attention to the fact that in 1831 a series of striking twilights was observed extending over a considerable part of the year, and M. Tissandier, the well-known aëronaut, now points out that during the first days of July in 1831 there was a volcanic eruption in the Sicilian Sea, between the coasts of Sciacca and the Island of Pantellaria. A new island (Julia), which subsequently disappeared, rose from the bosom of the sea, together with an upshot of ashes and cinders. M. Constant Prevost was sent by the Academy of Sciences to study the new formation. Prince Pignatelli assured him that during the early days of the eruption, the 10th and 11th of July, a fiery column arose from the crater "like a bouquet of artificial fire." At the beginning of August an immense column of dust rose and emitted a bright light. On the 5th of August "an impalpable dust carried by the winds fell in abundance." The eruption lasted several months, and the colored sunsets of 1831 began about the beginning of August, soon after the commencement of the volcanic effects. The peculiar twilights were remarked at Odessa, Rome, Madrid, and in Germany—that is to say, over a considerable area.

Microscopy.

Quekett Microscopical Club.

Mr. Edward M. Nelson gave a demonstration on the 14th inst. at the above club "On the Selection and Use of Microscopical Apparatus," of which we give a *résumé*.

Commencing with the choice of a microscope stand, Mr. Nelson said the different forms of stands might be broadly divided into two classes: (1) those in which the optical body was supported on a bar or arm projecting at right angles from the pillar-rack, as in Powell and Lealand's; and (2) those known as the Jackson Lister, in which the optical body had the rackwork applied directly to it and supported by a limb (two such microscopes, by Swift and Son, were shown as examples). His own experience was decidedly in favor of the Powell form, as lending itself so perfectly to the application of the best system of *fine adjustment* that he knew of—the long lever acted upon by a fine screw. Moreover, this form, when properly made, allowed the complete rotation of the stage, and plenty of space for manipulations on the stage. The Jackson-Lister might possess an element of steadiness beyond the Powell for use on board ship (as stated by Dr. Carpenter), but he could not regard that point as very essential, and it certainly did not compensate for the disadvantages which he feared were insuperable in that model. The application of a good fine adjustment to the Jackson-Lister presented great difficulties. He might at once state his conviction that the fine-adjustment attached to the body tube—the short lever acted upon by a screw—was "radically bad." He considered Messrs. Swift had hit upon a system of fine-adjustment for the Jackson-Lister that was, at any rate, far better than the short lever; they had applied a long lever vertically behind the body-tube, acted upon by a screw at the side, and thus attained an approximation to the certainty and delicacy of the Powell fine-adjustment. The Jackson-Lister ought to be a far less costly instrument than the Powell, as machine-work could be employed largely in its manufacture For the most difficult class of work he gave the preference, without reserve, to the Powell model; it must, however, be thoroughly well made, and must necessarily be a costly stand. He could not regard any microscope as worthy to be called a scientific instrument unless it were provided with a centering substage, and, indeed, he must emphatically urge that scientific microscopy really began with the use of a substage condenser—of which he would speak later on. Regarding the choice of objectives: they should be selected so that the battery might be increased without having to exchange, and without useless expenditure. The beginner might have a $1\frac{1}{2}$ in., and a $\frac{2}{3}$; later on a $\frac{1}{6}$ might be added, and as a higher power a $\frac{1}{12}$ oil-immersion of 1.43 N.A., such as Mr. Powell made so successfully. For all working purposes the battery would then be complete, and the microscopist equipped to repeat any results hitherto obtained. As luxuries a 3 inch, $\frac{1}{3}$, and $\frac{1}{25}$ might be got. It sometimes happened that the high initial magnifying power of the $\frac{1}{25}$ enabled the observer to find some hitherto unknown object, or portion of an object, more easily than with the $\frac{1}{12}$; but when once found its details of structure would be better made out with the $\frac{1}{12}$. So far it had not been possible to construct a $\frac{1}{25}$ as perfectly as a $\frac{1}{12}$, nor with so high an aperture; hence it would rarely bear any eyepiece beyond the lowest. The $\frac{1}{12}$, however, with proper manipulation, would bear the 1 in. eyepiece, and then reveal structure that could not be made out with $\frac{1}{25}$ths as hitherto constructed. Half-inch objectives had been made with apertures of 80°. Some authorities had declared that 40° was the highest aperture that could be usefully employed with that focal length. He had obtained one of the best examples of the $\frac{1}{2}$in. of 80°, and had made a careful series of trials with it. He had applied diaphragms above the back combination to cut down the aperture to 60° and 40° respectively, and the results might be briefly told. Taking the *proboscis* of the *Blow-fly* and viewing it with the $\frac{1}{2}$in. diaphragmed down to 40° aperture, and arranging the illumination in the most favorable manner, he noted every detail of the picture, the sharpness and blackness of the points of the bristles, the transparency and clearness and general precision of the image; then removing the diaphragm behind the lens, he increased the aperture to 60°, and he found the image improved in every way. Increasing the aperture to the fullest extent, 80°, gave no advance upon the quality of image seen with 60° up to the 1in. eyepiece; for this reason he concluded that 60° was the really useful aperture for a half-inch, and gave as much resolving power as the eye could well sustain with that combined power. No doubt the extra 20° would give the lens a higher resolving power with a stronger eyepiece, but he thought that might be better obtained with a lens of shorter focal length. In the matter of eyepieces, so far he had not done useful work with anything higher than the one-inch, except in adjusting the correction collar in testing objectives. With reference to the question of the relation of aperture to power, he alluded to a note already communicated to the Club in which he had said, that by experiment he found that the normal eye was capable of defining objects at a distance of 10in., making an angle of $1' \, 23''$; that is to say, it was capable of separating lines ruled at the rate of 250 to the inch. Applying this to microscopical vision with a half-inch, the question was—What aperture was necessary to enable it to resolve anything that would be brought to that visual angle by an amplification of ten times its initial power? For example: the half-inch having an initial power of twenty, with a 1in. eyepiece would magnify 200 diameters; multiplying the last figure by 250, we obtained the product 50,000; an aperture of 63° would be required for the resolution of lines of that fineness. He might warn microscopists generally of the immense number of grossly defective eyepieces that were offered for sale. The Huyghenian eyepiece should be constructed so that the radius of curvature of eye-glass to the field-glass should be as 3 : 1. Certain manufacturing opticians had entirely lost sight of the formula, and they made the same field-glass do duty for eye-glasses of different foci. The result was lamentable. Well-made eyepieces were most essential to good work with the microscope. Here, again, he could bear testimony to the conscientious accuracy of Messrs. Powell and Lealand, who had not departed from the strict Huyghenian formula for eyepieces. On the use of daylight, he said he found it effective for low powers up to $\frac{2}{3}$in., and with condenser up to $\frac{1}{6}$in. The direct sunlight involved the use of a heliostat, otherwise the continued adjustment of the mirror was irksome. Where strong resolving power was needed, oblique pencils of sunlight from the heliostat would outrival any other illumination; but much care was necessary not to injure the sight, and, on the whole, he could not recommend its general use except for photographing. Diffused daylight was too uncertain—too variable—for accurate testing of objectives. It was not possible to get with diffused daylight the absolutely best image that an objective would produce. A really critical image could only be seen with artificial light, and with a good condenser and diaphragms. He did not mean to say that no good work could be done with diffused daylight, for excellent work was done with low or medium powers; but he insisted that it was not possible to do any such critical work as testing objectives by daylight as thoroughly as it could be done by artificial light. With daylight and mirror only there was milkiness, and what he might term "glaze." The milkiness could be got rid of by a diaphragm, and the "glaze" by using a ground-glass behind the object. Unless a condenser were used there would always be found a falling off of the quality of the image with all powers higher than $\frac{2}{3}$. From long experience in working with the microscope, he felt justified in asserting that on the whole daylight was more trying to the sight than lamplight.

To be continued.

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Actinomycosis Discovered in Cattle.—Dr. William T. Belfield, of Chicago, has made the important discovery that actinomycosis exists in American cattle. He was asked by the Commissioner of Health of Chicago to investigate a disease in cattle which has generally been known as "swell-head," and has been called by veterinarians cancer, sarcoma, etc. Five animals were examined by Dr. Belfield, and a very short study of the specimens under the microscope revealed the true nature of the disease. Actinomycosis was only recognized six years ago by Böllinger, of Munich, who announced that it was a parasitic disease due to the presence of a rapidly growing fungus. It has since been discovered in the hog and in man. It generally first attacks the jaws, and probably gains access to the deeper tissues through carious or defective teeth. It spreads into the tissues of the head, causing tumefactions, suppuration; finally, if unchecked, pyæmia and death. It may gain the blood and be transferred to other parts of the body. This happens especially with man, upon whom the parasite acts most virulently. It is supposed that its source is the grain with which animals are fed. The disease is generally fatal, though prompt measures may check it. The meat of animals dying from actinomycosis is not of first quality; it is not, however, yet known that it is absolutely injurious. Thorough cooking, at any rate, destroys the parasite. Dr.

Belfield's discovery is an important one, and should become promptly known to veterinarians and sanitary officials.—*Med. Record.*

Gleanings.

Horrible Hiccough Cured.—Doctor Ruhdorfer, in the *Allgemeine Wiener Medicin. Zeitung*, No. 38, reports a case of hiccough lasting three months, and which morphia, hypodermically, could only check for a few hours or days. It resisted all the usual remedies. The patient dragged on three months under various remedies, morphia being administered whenever an attack lasted beyond eight hours. But at last the attacks became overpowering, and the hiccough was so loud that the patient could be heard outside the house, through two doors. She sat up in bed, supported by her parents; there were dyspnœa and cyanosis, and the head was jerked in all directions, the pulse was small and frequent, the neck was distended. Remembering a case in the *Revue Medico-Chirurgicale*, Dr. Ruhdorfer injected a solution of pilocarpine hydrochlorate (three centigrams in a gram of water). The hiccough was at once cured, as if by magic, and has never returned since.—*Louis. Med. News.*

Iron in the Treatment of Skin Diseases.—Dr. Casarini has employed the perchloride of iron with advantage in a large number of chronic skin affections. He uses an ointment of from one to three grams of perchloride of iron to thirty grams of lard. He concludes from a number of observations that: 1, Perchloride of iron (internally administered) is the most efficacious agent in the treatment of simple or hemorrhagic purpura; 2, it is very useful to combat the anæmia which often accompanies certain cutaneous affections, such as rupia, ecthyma and impetigo; 3, its external employment gives excellent and speedy results in ulcers of scrofulous and syphilitic origin; 4, in the form of ointment it constitutes a good remedy in the squamous skin diseases, especially in psoriasis.—*Journal de Medecine de Paris*, November 24, 1883.

To Prevent Mammary Abscess.—Dr. Richard Wood is convinced that no breast, during lactation, would ever suppurate, if proper preventive means were used. So soon as the nipple is in the least sore, he applies a glass shield with a rubber nipple, and orders frequent topical employment of glycerite of tannin. If indurations, etc., appear, he uses belladonna liniment externally, and gives internally a 5-grain pill of calomel and a mixture consisting of appropriate portions of bell. tinc., magnes. sulph., spiritus chloroformi, aqua destill. "The nurse should not be afraid to give brandy if there should be signs of fainting from the violent action of the aperient."—*N. Y. Med. Journal.*

THE RELATION BETWEEN ŒDEMA AND DISEASE OF THE KIDNEY.—One of the chief grounds upon which Cohnheim rejected the theory of the hydræmic nature of anasarca in acute nephritis was that he had never succeeded in producing it in dogs after the artificial production of very marked hydræmia. Dr. Gartner has, however, obtained different results upon repeating these experiments. He found œdema of the skin after the slow injection of a solution of common salt. He used an excessive quantity of the solution. In one case, in which the dog weighed about 65 ounces, he injected in the course of four hours 62 ounces of the saline solution.—*Centralblatt fur Klinische Medicin*, October 13, 1883.

ALBUMINURIA OF PREGNANCY—DEEP MAMMARY ABSCESS.—Here was œdema and swelling in the breast of a puerperal woman, who has had a chill. No fluctuation can be detected, but Dr. Parish (Phila. Hosp.) will make an incision; for it will do no harm, even if there is no pus, and if there is, it will give it a vent and prevent it from burrowing. He did strike pus, but had to go deep for it. There had been an escape of a few drops of pus from the nipple, which caused him to suspect its presence, in spite of the absence of fluctuation. The breast will be poulticed, and after the tenderness disappears he will strap it.—*Med. and Surg. Rep.*

ULCERATING EPITHELIOMA OF THE BREAST—SUBCUTANEOUS LIGATURE.—In a case of repeated and exhausting hemorrhages from an ulcerating cancer of the mammary gland, Prof. Nussbaum applied a subcutaneous ligature, drawn so tightly as to strangulate the growth. The bleeding was at once arrested, but the effects upon the malignant growth were remarkable; it shrunk to one-fourth its former size and began to cicatrize. The same principle, by another method, was subsequently carried into operation. The base of an ulcerating epithelioma was girdled by an incision through the skin, made with the thermo caustic knife. The object attained in each case was a partial interruption of the arterial and nervous supply to the affected area, and the progress of the patients was so satisfactory as to call forth Prof. Nussbaum's approval and endorsement. He recommends a more extended trial of this method, especially where there is bleeding.—*Medical Times.*

Puncturing the Kidney with a trocar, or the aspirator, is performed for the relief or cure of hydro- and pyo-nephrosis, large isolated serous or blood cysts of the substance of the kidney, and hydatid cysts. When from their degree of distension such swellings are causing serious consequences by pressure, or there is risk of the cyst-wall rupturing, the contents ought to be evacuated.

The point selected for puncturing will depend upon circumstances. If there be any spot over the swelling which is thin, soft, prominent or fluctuating, the trocar should be there inserted. A point which is not seldom indicated is midway between the umbilicus and the anterior superior spine of the ilium; or half an inch below, and an inch and a half to the side of the navel. When no particular spot is suggested by discoloration or prominence, no better place can be selected on the left side than an inch in front of the last intercostal space; but if the tumor be of the right side this is too high, as the liver would probably be traversed. On the left side the spleen, under ordinary circumstances, runs no risk of being punctured by inserting the needle well in front of the eleventh intercostal space; and if the spleen be projected forwards by the tumor, as I have sometimes seen it, it will be detected in its abnormal position by palpation, and must, of course, be avoided. "If there be no indication for operating elsewhere, I think the best spot to select when the tumor is of the right kidney, is half-way between the last rib and the crest of the ilium, between two and two and a half inches behind the anterior superior spine of the ilium. This spot is on a level with the front of the bodies of the lumbar vertebra, and a needle here passed horizontally inwards will be altogether in front of the kidney. It may, however, with safety be conjectured that in any case of hydro-nephrosis of the right side requiring to be tapped, if the trocar be inserted at this place and directed somewhat forwards, the peritoneum and colon will be sufficiently in front to escape injury, the liver will be safely out of reach above, and the kidney behind, while the dilated pelvis of the kidney will be tapped at its anterior and lower part." These remarks were made by the author in a paper on intermitting hydro-nephrosis, published in the *Roy. Med. Chr. Trans. of* 1876, and were based on numerous experiments, some of which are there recorded. In performing the operation, the aspirating trocar should be inserted without any previous incision of the skin; if a larger trocar be used, an incision through the integument and muscles is sometimes made before introducing the instrument.

The dangers of the operation are very slight. If the puncture be made too far forwards, and through non-adherent peritoneum, some of the contents of the cyst might be extravasated into the peritoneal cavity on withdrawing the canula, an accident which has proved fatal in more than one case. There is also the danger of wounding the intestine, which, as a rule, is in front of and adherent to the tumor; and if the trocar be long, and be thrust too far inwards, it might penetrate some important blood-vessel, and cause dangerous if not fatal hemorrhage. The penetration of the thin edge of the liver with an aspirating needle, though to be avoided, is not an accident likely to be followed by any ill-consequence. The instrument should not be introduced too near the ribs, for fear of wounding the pleura.—*Lancet*, March 15.

Habitual Constipation.—Dr. J. M. Granville, *British Med. Jour.*, May 26, 1883, describes three varieties of habitual constipation which he is usually able to relieve without using the ordinary aperients, and gives the prescription which he commonly employs in their treatment. He first calls attention to a form of constipation in which the muscular layer of the bowel is at fault, and the presence of ingesta does not excite it to contraction. In these cases there is apt to be much discomfort from eructations, incarcerated flatus and colicky pains. It is worse than useless to employ ordinary aperients in such a condition as this; they only irritate, without strengthening the nerves, on whose healthy activity everything depends. When, therefore, there is this form of constipation present, the author gives the following prescription, and with very uniform success:

℞	Sodii valerianatis,	gr. xxxvj
	Tinct. nucis vomicæ	ʒj
	Tinct. capsici	*m* xlviij
	Syr. aurantii	℥ jss
	Aquam ad	℥ vj

M. Sig ℥ ss, in water t. i. d. half an hour before meals.

In a second form of habitual constipation the difficulty seems to result from a deficiency of glandular secretion, generally, throughout the intestine. This is manifested by a peculiar dry and earthy character of the dejecta, and is treated by the author as follows :

℞	Aluminis	℥ iij
	Tinct. quassiæ	℥ j
	Inf. quassiæ	℥ vij

M. Sig. ℥ j, t. i. d., after meals.

The third form of constipation depends upon a failure to cultivate regular habits of defecation. This may generally be relieved by directing a regular *attempt* to go to stool, and by the use of the following draught, taken immediately after *rising*—not after *waking*. It will be observed that it is not an aperient in the ordinary sense of the term. It is, as a rule, neither necessary nor desirable to continue taking it for more than a fortnight. In most instances it will be found to re-establish a normal habit in a week or less :

℞	Ammonii carbonatis	℥ j
	Tinct. valerianæ	℥ j
	Aq. camphoræ	℥ v

M. Sig. ℥ j immediately after rising.—*New York Medical Journal.*

Social Relations of Inebriety.—Some conclusions on this subject reached by Dr. Crothers, of Hartford, are as follows :

1. Inebriety as a disease was noted in antiquity, and has ever been considered a form of insanity, marked by a progressive march or order of events, from certain physical causes, on to death.

2. The march of inebriety is in waves and currents, controlled by some unknown law, clearly within the range of a wider knowledge to prevent and remedy.

3. The treatment of inebriety by penal methods is disastrous to the victim, actually intensifying and making the disorder more incurable.

4. Physical treatment and isolation in special work-house

hospitals, where the best conditions of physical and mental health can be applied and maintained for a long time, give the largest promise of cure and permanent restoration, and are the means suggested by nature and scientific study.

5. As a question of economy simply, it would be an immense gain to the tax-payer and society to thus quarantine these persons, and make them self-supporting. This is a fact whose practical character is well assured in many ways. —*Editorial in Med. and Surg. Reporter.*

MORBID CHANGES AFFECTING THE HEART.—In the prospectus of the new edition of Quain's Dictionary of Medicine, the following summary of cardiac pathology is offered: 1. The heart may be displaced, misplaced, or malformed. 2. Its various textures, including the coverings, the lining membrane, the valves, and the walls are liable to acute and chronic inflammation and their effects. 3. The organ itself may be increased in size, either by general dilatation of one or more of its cavities, or partially, as by aneurism of the walls, or by the addition to its volume by hypertrophy of its muscular structure, of the fatty tissue which exists beneath the pericardium, or of the connective tissue which binds the muscular fibres together. 4. Its volume may be diminished by simple or general atrophy, or by the walls of one or more of its cavities being wasted and thinned. 5. Its walls are liable to various forms of degeneration, more especially fatty, granular, calcareous and pigmentary. 6. They may be the seat of fibroid disease, and of various morbid growths, such as cancer, tubercle and syphilitic formations or hydatids. 7. Congestion and hemorrhage may occur in the walls of the heart. 8. These are liable also to such injuries as rupture—whether spontaneous or as the result of violence; and to various kinds of wounds and their effects. 9. And lastly will be found discussed, under the head of functional disorders of the heart, certain disturbances in its action and sensibility which can not be clearly referred to any structural lesion.

THE USEFUL BUT SINFUL CYPRIAN.—Mr. Lecky, in his "History of European Morals," writing of the causes of prostitution says, "Under these circumstances, there has arisen in society a figure which is certainly the most mournful, and in some respects the most awful, upon which the eye of the moralist can dwell. That unhappy being, whose very name is a shame to speak, who counterfeits with a cold heart the transports of affection, and submits herself as the passive instrument of lust; who is scorned and insulted as the vilest of her sex, and doomed for the most part to disease and abject wretchedness and an early death, appears in every age as the perpetual symbol of the degradation and the sinfulness of man. Herself the supreme type of vice, she is ultimately the most efficient guardian of virtue. But for her, the unchallenged purity of countless happy homes would be polluted, and not a few who, in the pride of their untempted chastity, think of her with an indignant shudder, would have known the agony of remorse and of despair. On that one degraded and ignoble form are concentrated the passions that might have filled the world with shame. She remains, while civilizations rise and fall, the eternal priestess of humanity, blasted for the sins of the people." —*Louisville Med. News.*

ARTIFICIAL AND OSSEOUS CRISES IN THE FOOT IN LOCOMOTOR ATAXIA.—A peculiar deformity of the foot, occurring in the course of tabes dorsalis, has been recently observed by Drs. Charcot and Féré. The same affection has also been described by Page, in the *British Medical Journal* for the current year. The inner border of the foot, opposite the scaphoid and first cuneiform bones, is arched forward, while the metatarsus is bent outward as if it were luxated, presenting a sharp angle at the first tarso-metatarsal articulation. There is no inflammation, no pain, no crepitus. At the autopsy of a case of this kind the following changes were noted: The underjoint surface of the astragalus, as well as the corresponding part of the os calcis, were worn away and presented vegetations along their edges. The talus itself was fractured at the neck. The scaphoid and cuboid bones were greatly deformed. The first cuneiform bone was very large, and it and the second were anchylosed with the corresponding metatarsal bones. The third cuneiform bone was broken into numerous fragments. All the tarsal and metatarsal bones were spongy, soft, and lighter than normal. These changes were independent of any traumatism, and had nothing to do with any suppurative processes. The author thought that they are analogous to the lesions occurring in the long bones and larger articulation in locomotor ataxia.—*Centralblatt für Klin. Med.—N. Y. Med. Record.*

IODINE, EXTERNALLY AND INTERNALLY, IN AMENORRHŒA AND DYSMENORRHŒA.—It is rare, says Chéron, that amenorrhœa and dysmenorrhœa are not complicated by lumbo-abdominal neuralgia which adds to the painful state of the utero-ovarian apparatus in these affections.

Tincture of iodine freely applied, every two or three days, over the region of the kidneys, acts very much in the same manner as the application of heat; that is to say, it stimulates the centres of the vaso-motor innervation of the lumbar portion of the cord, and of the sympathetic, and at the same time tends to relieve the congestion of the genital apparatus. By this congestion the normal uterine flow is interfered with, being retarded or suppressed.

The tincture of iodine alone will suffice when the lumbo-abdominal neuralgia is not internal. If the neuralgia is internal, Chéron employs the morphinated tincture of iodine: Tincture of iodine 30 parts, sulphate of morphia 1 part. Used internally, iodine is, of all the emmenagogues, one of the surest in its action, more particularly in cases of corpulent persons with very white skin, in whom the lymphatic type is predominant. Iodine may also be employed with good effect in the following formula, whatever may be the cause of the menstrual trouble: Tincture of iodine 1½ parts, tincture of aconite 2 parts, syrup of tolu 400 parts. Sig.—Dose, one, two or three teaspoonfuls before each meal, or one spoonful for three days, two for three days, and three for as long a time as may be desired.—*Revue de Thérap.*—*Med. News.*

ANOMALOUS CASES OF PARKINSON'S DISEASE WITHOUT TREMOR.—A well-developed case of Parkinson's disease (paralysis agitans) presents the following symptoms: A bending forward; a rigidity of the articulations, with a tendency to fixation in flexion; tendency to propulsion; motionless attitudes; deliberate movements; slight general weakness; rhythmical tremors, which are made worse by emotion or excitement of any kind, are not made worse by voluntary movement; can generally be temporarily stopped by an effort of the will and cease during sleep and artificial anæsthesia; an hypertrophy of the muscles affected; a peculiar deformity of the hand; fingers not flexed on themselves, but semi-flexed on the hands, and thumb opposed to the index; staring and half-smiling expression; immobility of the face; speech slow and between the teeth; voice apt to be piping; a sensation of heat; aching pains; emotional state; fair preservation of intellect. Now, there may be cases of Parkinson's disease without tremor. The published cases of these are so rare that Dr. R. W. Amidon presents abstracts of them. These cases were observed by Charcot, Buzzard and himself. In all of them the characteristic symptoms enumerated above were present, but there was a complete absence of tremor.—*N. Y. Med. Record.*

THE BITE OF AN EPILEPTIC.—Attention has been drawn to the danger of injury from the bite of a human being while suffering from a fit. A young man who assisted a woman who had fallen in a fit and was convulsively biting everything within her reach, received a bite on the hand and died three days afterward. This created a scare and gives rise to grave questions. In all probability the man who met his death in this way would have fallen a victim to any other injury producing an equally strong impression on his body and mind. There is no poison in the bite of a person in a fit, as there is in the bite of a rabid dog. Many scores of attendants on epileptics are bitten and nothing comes of it. Any wound may set up serious irritation, or erysipelatous inflammation may supervene, with the result of placing life in imminent peril; or terror may kill. It is of course desirable that every care should be taken to avoid the bite of an epileptic, as it is also that of any other excited or enraged creature; but there is not the slightest ground for supposing that worse consequences will follow any injury of this class than one of any other description, if it be equally severe and is attended on the part of the victim by a morbid state of the constitution. —*London Lancet.*

QUEBRACHO IN DYSPNŒA.—The *Med. and Surg. Reporter* says: Prof. Da Costa has had some very satisfactory results from the treatment of dyspnœa by quebracho. In a recent lecture he said that in his experience it had been especially serviceable in two classes of cases: (1) In purely nervous asthma he had found it to be invaluable; (2) In cases which have been rather loosely called cardiac asthma, cases in which a heart lesion has produced failure of cardiac contraction and consequent congestion of the lungs, he had also known it to be very useful. It may serve as a cardiac tonic, or may do good solely by its action upon the respiratory center in the medulla. Whatever may be the explanation, however, it gives wonderful relief in appropriate cases. The way in which he gives it is the fluid extract in doses of twenty minims every hour, gradually increasing the amount, some patients requiring as much as a drachm before relief is obtained. The good effects are observed usually after two or three doses have been taken. The taste is well covered by using equal quantities of the French syrup of red orange and water as the vehicle. In this form it usually agrees with the stomach. As the respiratory symptoms are relieved, the remedy may be given at longer intervals.

THE WRITING OF GALEN.—The *Amer. Practitioner* says: Most of us have but a faint conception of the vast extent of the writing of Galen. In a sketch of his life by Dr. G. J. Fisher, in the *Annals of Anatomy and Surgery*, as the result of a careful comparative computation, it was found that the united lines of the Bible amount to sixteen thousand feet, while those of a Greek edition of Galen extended to eighty-seven thousand feet, or sixteen and a half miles, exclusive of all headings, notes and references. It is five times more voluminous than the entire Bible. But this represents only his extant works. A portion of his manuscripts were destroyed by fire, and not a few by the lapse of time. It is supposed that he wrote no less than five hundred treatises, of which one hundred and sixty-eight are supposed to be lost. He wrote not alone on medicine, but on mathematics, logic and philosophy. Most of his writings were in Greek, elegant in style, but prolix and abounding in conceit, yet fluent, "fresh and familiar as if spoken yesterday."

MENSTRUATION AFTER OVARIOTOMY. — In reference to menstruation, after extirpation of the ovaries, the following professional opinions have been lately given: Dr. Campbell, of Georgia, does not deny the influence of habit, periodical plethora, the ovaries, and the Fallopian tubes, but he thinks there is a certain endowment of the nervous system. Dr. Goodell puts it that there is an irritation of the nervous bulb. Dr. Emmet had a case in which both ovaries were removed together with the Fallopian tubes, and yet there had been a regular menstruation thirteen times. Dr. Thomas said, as a rule, if the ovaries are removed, menstruation is the exception. If it occurred, it was due to a metrostaxis. The only benefit of Tait's operation, over Battey's, was that all the ovarian tissue was more likely to be removed. Dr. Byford believes that in many cases some of the ovarian tissue was apt to be left; that it is difficult to remove all of said tissue.—*Amer. Jour. Obst.*

DYSMENORRHŒA—Dr. Fordyce Barker, of New York, believes that mechanical obstruction as a cause of dysmenorrhœa exists in only a small percentage of cases, that there are two forms of the disease, one uterine and the other ovarian. In the uterine variety there are cases which do not depend at all upon obstruction; the pain is due to the effort of the uterus to relieve the plethora by the rupture of capillaries and exfoliations of mucous membrane. He uses the lactate of iron in doses of from three to five grains three times a day, associated with chlorate of potash; as soon as the symptoms of menstruation begin he gives apiol, which he looks upon almost in the light of a specific. In ovarian dysmenorrhœa there is no pain until the flow has continued for two or three days; when the cause was ovarian, the bromide of sodium in ten or fifteen-grain doses in the middle of the forenoon, in the middle of the afternoon, and at bedtime, was the proper treatment.—*Amer. Jour. Obst.*

BROMIDE OF ARSENIC IN DIABETES.—According to the Canada *Lancet*, Dr. Pekai, clinical assistant to Prof. Karaonyi, of Buda-Pesth, from a series of experiments with bromide of arsenic in diabetes, proves the remedy to be exceedingly satisfactory. He uses a solution prepared as follows; ℞. Arsenious acid., carbonate of potash, bromine, āā gr. jss; water, q. s.

The arsenious acid and potash are placed in an eprouvette, five drops of water are added, and treated until the liquid is limpid. Then sufficient water is added to make two and a half drachms by weight, and then the bromine, and the whole let stand for twenty-four hours before use.

The solution was administered by placing three drops in an ounce of water, of which three equal doses were made. The quantity being increased, an additional drop every three days until ten drops a day were administered.—*Canada Lancet*, February, 1884.

NERVOUS COUGH.—The *Med. and Surg. Reporter* speaks of a disagreeable, dry, hacking cough, unaccompanied by evidence of lung trouble, and says that Dr. J. Mortimer Granville considers this cough to be due to irritation of the recurrent laryngeal and pneumogastric nerves. It is important that it should be relieved, because the cardiac and gastric irritation which it produces, will cause such nutritive changes in the bronchial membrane and sub-mucous tissue, as to induce a low inflammatory action and the deposit of tuberculous lymph. To relieve it, he advises blistering over the pneumogastric nerve (along the whole anterior margin of the sterno-cleido-mastoid muscle will be near enough) with glacial acetic acid. This should be repeated every two weeks until the cough is relieved. Each side may be blistered alternately.

HEMIATHETOSIS.—Kirchhoff (*Archiv. f. Psych.*, Bd. xiii, p. 582) reports a case of hemiathetosis of the left side appearing suddenly in a patient of intemperate habits, suffering from cardiac dilation and cirrhosis of the liver with ascites and œdema. The case differed from ordinary cases of athetosis in that the movements were not confined to the hand and foot, but were participated in by the eyes, jaw and face. After a time slight athetoid movements appeared in the right hand. There were no sensory symptoms, and only transient and inconsiderable paresis of the left hand. The patient died three weeks after the appearance of the hemiathetosis, and a careful post-mortem examination failed to show any coarse brain lesion or any miliary apoplexies or embolisms. Delicate false membranes were found in the arachnoid sac of each side, but these Kirchhoff refused to consider as the cause of the unilateral athetosis.—*Brain.*—*Cin. Lan. & Clin.*

NUMBER OF MEDICAL PRACTITIONERS IN THE WORLD.—The *Maryland Med. Jour.* gives the following: It appears from a preliminary investigation made by the library of the Ecole de Médicine that the number of medical practitioners spread over all parts of the globe amounts to 193,000, among whom 18,258 devote themselves solely to advanced medical study. This is the manner in which these medical practitioners are distributed, according to their countries, viz: 65,000 in the United States, 26,000 in France, 32,000 in Germany and Austria, 35,000 in Great Britain and her colonies, 10,000 in Italy, 5,000 in Spain, etc. If the estimate for other countries is as low as that assigned to the United States, which contains nearer 90,000 than 65,000 physicians, the estimate of 193,000 for the entire world is far below the real number.

SYMPTOMATIC TREATMENT OF PARALYSIS AGITANS.—Erlenmeyer (*Centralblatt für Nervenheilkunde*, 1883, No. 9; *Gazette Hebdomadaire de Médecine et de Chirurgie*), after remarking that hydrate of chloral, morphine, bromide of potassium, nitrate of silver, and curare are of no avail in this affection, states that, on the contrary, the constant galvanic current applied to the head, in the neighborhood of the nucha (feeble currents, continued for five to twenty minutes), together with the use of a combination of atropine and ergot, is followed by decided amelioration. About half a grain of sulphate of atropine is made into a mass with fifteen grains of extract of ergot, and the mass is divided into thirty pills, of which one is to be taken daily. Pure crystallized hyoscyamine the author regards as both too costly and too dangerous.—*N. Y. Med. Jour.*

TONGALINE.—We wish to call the attention of our readers to this new remedy for neuralgia and rheumatism. Having a case of neuralgia recently which did not improve under the ordinary treatment, we had Messrs. Bush & Co. order some Tongaline for us, which we gave to our patient. It acted admirably, relieving the pain before many doses had been taken. Since then we have had occasion to prescribe it several times, and with the same good results.

We believe Tongaline is destined to become "the" remedy for neuralgia, and the testimonials from noted physicians and surgeons surely tend to strengthen such a prediction. Try Tongaline and you will thank us for the suggestion.—Extract from the January ('84) number of the *Eastern Medical Journal*, Worcester, Mass.

ACTION OF SALICYLATE OF SODA ON THE UTERUS.—Sabatowski has shown that salicylate of soda has a markedly good effect in calming the pains accompanying the so-called arthritic dysmenorrhœa, and in his *Thèse* he insisted on the menorrhagic action of the drug, which was previously mentioned by Bucquoy. M. Balette (*Thèse de Paris*, 1883) has published several cases confirmatory of this action. It produces visceral congestions, which may cause hemorrhage; it is at this point that the uterine hemorrhage appears. Hence it may excite and bring on the menstrual flow. Whether or not the drug is an abortifacient still remains to be seen, though experiments on guinea-pigs have completely negatived this idea.—*New York Med. Record.*

CHOREA TREATED BY CONIUM.—At the Leeds General Infirmary, several cases of chorea have been treated by large doses of conium. It was found:

1. That the drug, to be of any service, must be given in large doses, frequently repeated.

2. That it acted in well the violent cases where the movements were so great as to endanger life, and where chloral and morphia were ineffectual.

3. That, owing to the variability in strength of the preparation care must be taken in giving the large doses.

It does not appear from the records given that chloral was very thoroughly tried. The value of conium, however, has been established by American observers.—*Lancet.*

Medicated Injections into the Uterine Tissues.—Dr. Schücking makes injections into the uterine substance by means of a syringe similar to the ordinary hypodermatic syringe, only with a much longer needle, so that the point may be inserted at the neck of the womb through an ordinary cylindrical speculum. He has in this way made injections of ergotine and Fowler's solution in the case of uterine fibroids, and in subinvolution of the uterus. In hyperplasia of the neck and hypertrophy of the cervical glands he uses tincture of iodine. Injections of a mixture of tincture of iodine, Fowler's solution, and carbolic acid have been employed to combat inflammation of the uterus.—*Bul. Gén. de Thérap.—N. Y. Med. Record.*

Salicylate of Soda in Phlegmasia Alba Dolens.—D. Miguel Vigar (*La Correspondencia Medica*) says that of four cases of phlegmasia alba dolens which he has had occasion to treat, in the first with the topical remedies usually employed he obtained no result attributable to the medication, since the patient remained in bed two months; and that in the other three, having employed the salicylate of soda, in the dose of 4 grammes (60 grains) a day, he noticed in all, from the first day of taking the medicine, notable diminution of the fever and œdema. Neither of these patients passed more than twenty one days in bed, and no œdema, nodosities, or thickening of the lower limb remained. —*Lond. Med. Record.*

Alcoholism a Cause of Sterility.—In the course of the Gulstonian Lectures on Sterility, Dr. J. Matthews Duncan attributes a causative influence to the free use of alcohol. Alcoholic drinking, he says, has, in addition to the general or constitutional disorder which it produces, well-ascertained power, in certain cases, to induce disease of the internal genital organs. That which is most easily and distinctly made out is chronic ovaritis. It often comes and goes in the presence or absence of the cause. When it is present, sterility is not always a result, but frequently so, and its cure is often followed by the disappearance of the sterility.—*British Med. Jour.*

Hypophosphites of Lime in Cancer.—The following is Dr. Hunter McGuire's formula for the use of hypophosphites of *lime* and *soda* in cancer of the breast :

℞ Hypophosphite of lime and soda, ℥ ss.
Diluted phosphoric acid, ʒ ss.
Distilled water, ℥ viij.

M. Sig.—Teaspoonful in water three times a day, and, when indicated, he sometimes uses in addition *arsenic* and *iron* in the forms of chlorides of *arsenic* and *iron*.

There can be no doubt that the progress of the cancer can be delayed by the use of this combination.—*Med. Times.*

The Quinine Treatment of Whooping Cough.—The *New York Med. Jour.* says this plan has been made the subject of renewed investigation by M. Poskin, who has compared it with the methods of treatment by the bromides, by belladonna, and by emetics. In twenty-eight cases in which he employed the tannate of quinine he found that it invariably shortened the spasmodic stage, and diminished the intensity of the paroxysms. He does not agree with Binz that its action is that of a parasiticide, nor does he regard it as a specific. He prefers to give large doses toward evening, all within the space of half an hour. For children he uses the tannate, but for adults the sulphate.

Massage in Phlegmasia Alba Dolens.—Kochman has employed massage with good results in this condition. He places the patient so that the leg is higher than the body. Massage is then carefully performed from the foot upward to the thigh. In one case, where the leg was very large, the swelling went down one-third in four days, and was completely removed in twelve.—*Allg. Med. Cent.-Zeit.*—*Canadian Pract.*

A Pleasant Disinfectant for Rooms.—The *Med. and Surg. Reporter* quotes from an Italian journal that a few drops of the following mixture on a plate will pleasantly disinfect a bedroom: Camphor, 20; hypochlorite of lime, alcohol and water, of each, 50; eucalyptus and oil of cloves, of each 1 part. The ingredients must be mixed slowly in a cool, spacious vessel.

HOARSENESS IN SPEAKERS AND SINGERS.—The *Jour. of the Amer. Med. Association* says: M. Corson advises the placing in the mouth of a small piece of borax, about two or three grains; it produces an abundant salivation, and the voice becomes clear. He also recommends the use of a couple of grains of potassium nitrate in a glass of sugar and water, or an infusion of forty-six grains of jaborandi, and—shortly before using the voice—of a gargle with six or seven ounces of a decoction of barley, one to two drachms of alum, and two drachms of honey of roses.

Book Notices.

LEGAL MEDICINE.—By Charles Mezmott Tidy, M. B., F. C. S., Master of Surgery; Professor of Chemistry and Forensic Medicine at the London Hospital; Late Deputy Medical Officer of the Board of Health and Public Analyst for the City of London, etc., etc. Volume III. 8vo. Pp. 321. New York: Wm. Wood & Co.

This work forms the January volume, 1884, of "Wood's Library of Standard Medical Authors." We have explained the peculiar features of this Library so frequently, heretofore, that we presume our readers are fully acquainted with them.

The volume before us is devoted to the consideration of legitimacy and paternity, pregnancy, abortion, rape, indecent exposure, sodomy, bestiality, live birth, infanticide, asphyxia, drowning, hanging, strangulation, suffocation.

The author states that this volume contains the notes prepared for his lectures on legal medicine, delivered at the London Hospital during the summer session of 1882. He has endeavored personally to investigate each subject from the point of view of the medical jurist. With this object he has searched the original memoirs when he has been able to gain access to them to learn directly the views held by authorities, and the cases upon which their opinions were based.

The work is one that should be in the library of every physician. Every practitioner of medicine is liable, in medico-legal prosecutions, to be called upon to give testimony in cases in which the subjects upon which it treats are involved. The ordinary textbooks do not contain a sufficient amount of detailed information for the wants of a medical witness called upon as an expert to give evidence. In truth, very many facts in physiology, pathology, chemistry, etc., were observed and studied in reference to their legal bearing, or probably they would never have come under observation at all. As a consequence, works upon forensic medicine contain the results of much interesting research that can not be found anywhere else.

Volume III, devoted as it is to the medico-legal aspects of the sexual relationships, contains a large amount of interesting and valuable information which we are sure will be studied with interest. A physician taking it up will not lay it down until he has finished its perusal.

SIXTH ANNUAL REPORT OF THE CONNECTICUT STATE BOARD OF HEALTH for the Fiscal Year ending Nov. 30, 1883, with the Registration Report for 1882, Relating to Births, Marriages, Deaths and Divorces. Printed by Order of the Legislature. Hartford, Conn., 1884. 8vo.

This work, of some five or six hundred pages, is a valuable contribution to sanitary literature, and is worthy of being bound in substantial cloth or leather binding, instead of only paper. The paper cover, however, is thick and substantial.

There are numerous tables of statistics which are interesting to only a few, but these do not take up much of the work. Among the essays, as we may properly term them, of interest and value are those having the following titles: "Hygienic Institutes," by Prof. Geo. A. Smyth, Ph. D.; "Some of the Unsanitary Conditions of Country Life," by Dr. Chas. Gardiner; "Sanitary Drainage of Tenement-houses," by Wm. Paul Gerhard, C. E., New York City; "The District School-house," by D. F. Lincoln, M. D., Boston; "The Epidemic of Diphtheria in Hartford," by C. W. Chamberlain, M.D.

The paper upon "Sanitary Drainage of Tenement-houses" contains a large amount of practical information in regard to scientific plumbing, not only of tenement-houses, but of ordinary dwelling-houses, which should be read by every one. It describes how soil and waste pipes should be laid, of what sort of material they should be made; it describes the proper construction of water-closets, washstands, their pipes, traps, valves, etc. The value of the paper is added to by being illustrated by a number of cuts.

Editorial.

Home Medical Journals.—We certainly have no objections for a physician to take as many medical journals as he feels disposed to—especially if he pays for them; but we think it is in bad taste, and unjust to himself and the profession of his own region, if, among the journals he takes, there are not one or more home journals. We do not think that a physician in the West can properly excuse himself when he subscribes but for one journal, and that an Eastern one, on the ground that he is not able to take but one journal, and as the Eastern journals are the best, he takes one of them instead of one published at home. We have nothing to say against any Eastern journal—they are all very good; but to say that they are superior to those published in the West is not to state the fact. There are no better medical journals published in the world than are some of the medical journals published in a number of the Western cities. But when a physician in the West extends no patronage to any of his home journals, but bestows the whole of it upon Eastern journals, he does all that *he can do* to make the latter good and the former poor. While money may be called "the root of all evil," yet it is quite essential to success in this world; and a medical journal can no more prosper without that which comes from its patronage than can a newspaper or any other enterprise. If it were the fact that Eastern journals are superior to Western ones, it would be because the former receive the most patronage; and their being patronized the most, would be the result of physicians in the West subscribing for them and discarding their home journals.

But physicians should not only be subscribers to their home journals (taking more or less of the Eastern journals in addition, if it pleases), but they should also write for them. An individual, who is entitled to any, has more influence at home, where he is known, than abroad; and if he has anything to say of importance, he will meet with more ready listeners among those who know him, or have heard of him, than among strangers. A physician, consequently, who has reason to believe that he has any experience in any department of medicine of value, or has made any observations of interest, can be more sure of having his article read, if he writes one, by contributing it to some one of his home journals than if he should send it to a distant journal.

The *Weekly Medical Review*, of St. Louis, recently contained an editorial upon the duty of physicians to support their home journals; and, as we are hurried for time in closing up our April issue, we probably can not do better than to copy it. It very well expresses the facts:

"If the profession of this part of the nation are wise, they will lend their support in every possible way, not only to this, but to every one of their respectable home journals. In no other way can the medical centers of the West hope to secure for themselves what justly belongs to them. Every year a large number of very valuable contributions, produced by Western men, is sent to Eastern journals. Clearly such a course helps to build up the medical centers of the East, by giving them what naturally belongs to the West. It has long been a mystery why men who could directly profit by the development of their own sections, as medical centers, are constantly adding to the attractions of distant cities, and to the advantage of those there practicing. It is not denied that whatever adds to the strength of a medical center draws patients to that center, and it follows that when a good, original contribution is sent to New York or Philadelphia, from Chicago or St. Louis, the writer, by his influence, sends, indirectly, with that contribution, valuable professional business that would otherwise more naturally be attracted to his own field. If our medical authors would consider their own interests a little more, and be governed a little less by the traditions of the past, traditions which no longer need apply, they must certainly see that they have not properly appreciated their own opportunities. The *Review* is not asking for itself. It has no grievance, but it would take this occasion to ask in behalf of the new enterprise the hearty co-operation of the whole profession. The Association journal starts with fortunate prospects. Its editor has been well chosen. No man in the profession has done more honest, hard, downright telling work. He now does the profession a favor in undertaking the management of this journal. Its establishment in our midst is a compliment to ourselves. Let us deserve the compliment."

TEA AND COFFEE: THEIR PHYSICAL, INTELLECTUAL AND MORAL EFFECTS ON THE HUMAN SYSTEM.—This is the title of a small work of some 125 pages, in paper covers, by Dr. Wm. A. Alcott, and published by Fowler & Wells. It takes the ground that both tea and coffee, as beverages, are baneful in their effects—being, however, less injurious to some than to others. In speaking of tea, it says that it is a medicinal substhnce having the effect of a powerful drug—is a poison, and produces a tendency to disease—that even a moderate use produces diseased conditions. Almost precisely the same language is used in describing the effects of coffee.

However much Dr. Alcott may write, and Fowler & Wells may publish, against the employment of tea and coffee as beverages, yet we do not believe that the slightest effect would be produced in checking their use. It is difficult to make a person believe that certain articles are injurious to health and poisonous in their action, that hundreds of old men and women, seventy, seventy-five and eighty years old, are seen indulging in daily and have used from their youths. In fact, with our grandmothers a cup of tea is necessary, and if they were deprived of it, they would scarcely be able to enjoy life.

Instead of believing that tea and coffee are detrimental, we believe that their proper use is beneficial. The wear and tear to which the nervous system is subjected in these days, when there is such a constant struggle for life with every one, a stimulant and anodyne is essential. Tea and coffee are exhilarating and anodyne in their effects. While they gently stimulate, they do not intoxicate; and whatever narcotic effects they may have, it is quite different from that of opium—so much so, that coffee is not unfrequently administered as an antidote to opium. The ancient Greeks and Romans, we know, enjoyed health and were capable of the greatest physical endurance, and yet they did not use tea or coffee. No doubt people might be able to live without them now. But eighteen hundred years and more ago the conditions of life were quite different from what they are now. More experiences are crowded into five years of life at this time than were then in twenty-five. Existence was more a physical affair at that time than now. While there were great philosophers, poets and writers in the days of antiquity, yet the masses of the people indulged in sports, as races, wrestling matches, etc., which tended mostly to develop the physical being, and did but little thinking. While there were constant wars in olden times, there was not, as now, the struggle for life. The rank and file of the armies served as mere machines, and, as with the masses generally, with their natural wants supplied, which was easily brought about, they had no further thought. In modern times, however, even with the humblest, not only is the intellect taxed to discharge the duties of life and obtain the means to live, but the emotional functions are kept upon a constant strain. In proportion to the population, there is reason to believe that, in our times, there are more than a hundred cases of insanity to one several hundred years ago. Surely under the circumstances a beverage that has a gentle, soothing influence upon the perturbed feelings, while at the same time it exhilarates, can not be otherwise than beneficial. Although it may not contribute to nutrition, it retards waste and prevents exhaustion. It is a well-known physiological fact that alcoholic liquors hinder the waste of tissue; and, consequently, while not nutritive, the strength will be much longer maintained, when no food is taken, if used, than if not employed. But alcohol is a violent stimulant unless quite limited in its employment, and readily becomes pathological in its effects. But tea and coffee, in their action in maintaining the standard strength, have none of the pathological tendencies of alcohol, and do not produce irritation of the digestive organs, like it, by coming in contact with them; nor do their active principles, after entering the blood, morbidly affect the organs, as the brain, liver and lungs, while circulating through them in an unchanged condition.

We readily admit that tea and coffee, as beverages, may be abused in their use, and act injuriously. And there may be persons whose idosyncrasies do not permit of their use without evil effects. But with the exceptions of a very few, we consider that they promote digestion, have a pleasant, stimulating effect, and produce a healthy, soothing influence upon the nervous system. Cinchona, belladonna, hyoscyamus, opium, etc., are evidently drugs designed to be employed as medicines to meet pathological indications, but the properties of tea and coffee manifestly point them out as every-day beverages. We do not know what morbid symptoms their peculiar actions would combat, if relegated to the shelf of the apothecary.

We think Dr. Alcott will make very slow progress in doing away with the use of tea and coffee. His publishers may succeed in selling a good many copies of the work and putting some money in their pockets thereby, but that will be about all the book will accomplish. It may be that that is all that there is designed to be accomplished.

THE HALLUCINATIONS OF GREAT MEN.—The number of great men who have been once, twice, or more frequently subject to hallucinations is considerable. A list, to which it would be easy to make large additions, is given by Brierre de Boismont ("Hallucinations," etc., 1862), from whom I translate the following account of the star of the first Napoleon, which he heard, second-hand, from General Rapp:

In 1806, General Rapp, on his return from the siege of Dantzic, having occasion to speak to the Emperor, entered his study without being announced. He found him so absorbed that his entry was unperceived. The General, seeing the Emperor continue motionless, thought he might be ill, and purposely made a noise. Napoleon immediately roused himself, and without any preamble, seizing Rapp by the arm, said to him, pointing to the sky, "Look there, up there." The General remained silent, but, on being asked a second time, he answered that he perceived nothing. "What!" replied the Emperor, "you do not see it? It is my star, it is before you, brilliant"; then animating by degrees, he cried out, "It has never abandoned me, I see it on all great occasions, it commands me to go forward, and it is a constant sign of good fortune to me."

It appears that stars of this kind so frequently spoken of in history, and so well known as a metaphor in language, are a common hallucination of the insane. Brierre de Boismont has a chapter on the stars of great men. I can not doubt that fantasies of this description were in some cases the basis of that firm belief in astrology which not a few persons of eminence formerly entertained.

The hallucinations of great men may be accounted for in part by their sharing a tendency which we have seen to be not uncommon in the human race, and which, if it happens to be natural to them, is liable to be developed in their overwrought brains by the isolation of their lives. A man in the position of the first Napoleon could have no intimate associates; a great philosopher who explores ways of thought far ahead of his contemporaries must have an inner world in which he passes long and solitary hours. Great men are also apt to have touches of madness; the ideas by which they are haunted, and to whose pursuit they devote themselves, and by which they rise to eminence, have much in common with the mononania of insanity. Striking instances of great visionaries may be mentioned, who had almost beyond doubt those very nervous seizures with which the tendency to hallucinations is intimately connected. To take a single instance, Socrates, whose *daimon* was an audible not a visual appearance, was subject to what admits of hardly any other interpretation than cataleptic seizure, standing all night through in a rigid attitude.—*From "The Visions of Sane Persons," by Francis Galton.*

THE RECENT RIOTS IN CINCINNATI.—We had intended to have said something, at considerable length, in regard to the riots which occurred in Cincinnati during the last days of March and first of April, but our space will not permit. We hope, however, to allude to them as regards their *medical aspect* in some future issue. As to the cause of the riots, we have no hesitation in saying that they were due to the degraded wickedness of the officers of the law. There is no city in the United States that, in proportion to its population, has a greater number of law-abiding, good citizens—of estimable, intelligent, cultivated men and women than Cincinnati—but those who administer the law, with a few exceptions, being indebted to the lawless element for their position, are notoriously corrupt, and, as a consequence, lawlessness and crime are winked at and go unpunished. Of late years all the theaters and vile variety shows are in full blast the same on Sunday as on other days; low saloons that are kept running all night are open every day of the year; great beer-gardens crown the hills and are found all through the city, to which men and boys resort, and young girls and women are taken and openly made drunk; prostitutes are permitted to establish their dens on principal streets in the heart of the city and ply their vocation with the most outrageous effrontery upon the streets; corruption at the ballot-boxes prevails—legal voter soften being prevented from voting, while the police will be called upon in vain to stop repeaters in their work. This every-day exhibition of contempt of law and commission of crime, semi-legalizing crime as it were, has brought as its legitimate result a failure to punish those who practice it, until murder, its highest form, is almost as common as petty larceny.

Is it any wonder that such a state of affairs, as we have described, existing so long that the people became impatient beyond endurance and that a violent reaction resulted as manifested in the riots?

A Gift.—We are indebted to the *Union Central Life Insurance Company*, of Cincinnati, for a very handsome gift in the way of a plate composed of a group of engravings of distinguished editors of some eight or ten leading religious newspapers. The first page of each paper is engraved with the picture of the editor presented in the center. The reading-matter in the columns surrounding is in perfect type, but the letters are so small that a magnifying glass is necessary in order to read it. The greatest artistic skill was required to execute such a group of pictures.

The following are the papers represented, with pictures of their editors: *The Congregationalist*, *The New York Evangelist*, *The Sunday School Times*, *New York Observer*, *The Interior*, *The Independent*, *The Examiner*, *The Christian Register*, *The Churchman*, *The Christian Advocate*, *Herald and Presbyter*, *The Christian Standard*. The picture of the Rev. J. G. Monfort, D. D., editor of the *Herald and Presbyter*, the only one of the journalists with whose appearance we are familiar, is as perfect a likeness as the best photograph. We presume those of the others are as correct.

Placed in an appropriate frame, the engraving will be a very desirable ornament to the walls of a library. We feel under great obligations to the Union Central Life Insurance Company for the gift. Drs. John and Wm. B. Davis are the physicians of the home office.

A Preacher Turning Quack.— There is a medical specialist practicing in this city, who, a few years ago, was a minister to one of the leading churches of Cincinnati. Becoming dissatisfied with the doctrines of the denomination with which he was connected, because the denomination would not change its doctrines, he left it and joined another. After preaching a year or so in the new one, he seemed to have become dissatisfied with it, for he united with still another one. In the meantime he matriculated at a medical college and obtained a diploma. He now has a sign up as a doctor and waits for patients. He is considerably past middle age.

Although practicing medicine, he has not given up preaching, as we frequently hear of his filling vacancies in different churches of the city. He is proposing, consequently, ostensibly, at least, to maintain his religious principles. But the query arises in our mind, How can a man be a really religious man—loving God and his fellow men, and anxious to do all the good he can—and advertise in the newspapers every week, as he does, that he has a new method of treating certain diseases which is superior to all other methods heretofore employed, and that sufferers of such diseases, if they wish to be rapidly and thoroughly cured, should apply to him? Every intelligent person knows that his claim to having any new and efficient treatment of any disease, known only to himself, is simply false. If he has, in what way did he discover it? He has not been a graduate more than two years; and having had but very limited opportunities for research, it is not probable he could have made any great discoveries in treatments which were unknown before. But granting that he has stumbled upon some valuable methods of treatment that enable him to cure certain diseases more rapidly and certainly than other physicians, what sort of a Christian is he, in keeping them secret? There are thousands of persons suffering with the diseases which he makes a specialty of treating, and, forsooth, all, except those who are able to apply to him, must continue to suffer, many of them sinking into premature graves. How exalted are his religious principles! Even though all would, if possible, yet only the smallest fraction of the sufferers can come to him.

We are happy to say that our profession recognizes no one as belonging to it who does not freely give his knowledge to his brethren, so that the world can have the benefit of it. To keep secret useful knowledge, especially in medicine, is wicked—it is a crime worse than murder; for it is killing or letting persons die because they do not pay a fee. We would say more, but we have probably given the individual mentioned sufficient attention.

COLORED DOCTORS.—We learn that the medical department of Harvard University, at Washington, admits all who are properly qualified without regard to color or sex, and that about one-third of these students are colored, and quite a number of their graduates are now practicing with success in the Southern States. The Leonard Medical School of Shaw University, Raleigh, N. C., was organized in 1881 for colored students. The report of 1882–83 states that the faculty consists of three professors, and that eleven students were enrolled, but no graduates. In February last the Meharry Medical Department of Central Tennessee College, Nashville, graduated eight students. Thirty-five young men have previously graduated from this school, and it is stated that they have been successful in their work, receiving the sympathy and aid of the resident white physicians. The course of study provided is the same as at other medical colleges, with the exception that a graded system is provided, and daily recitations are required.

We hope that the time is not far distant when many young colored men will, in these and similar schools, be thoroughly trained, so that they may be well prepared for the great and important work that is before them.

THE ASSOCIATION OF AMERICAN MEDICAL EDITORS.—The Annual Meeting of the Association of American Medical Editors will be held in Washington, May the 5th, at 8 P. M., in Medical Hall, Southeast Corner of Sixth and F Streets.

The Annual Address will be delivered by President LEARTUS CONNOR, M.D., on "*The American Medical Journal of the Future, as Indicated by the History of Americau Medical Journals of the Past.*"

Dr. N. S. DAVIS will open the discussion on "*How far can Legislation Aid in Elevating the Standard of Medical Education in this Country?*" in which Dr. A. B. Palmer, Dr. Henry O. Marcy, Dr. L. S. McMurtry, Dr. C. H. Hughes, Dr. Frank Woodbury, Dr. William Brodie, Dr. A. N. Bell, Dr. William B. Atkinson, Dr. W. C. Wile, Dr. W. R. D. Blackwood, Dr. Henry Leffmann, and Dr. Deering J. Roberts will take part.

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SHAKESPEARE AS A PHYSICIAN.—This is the title of an octavo volume of 226 pages which we have received from the publishers just as we are closing the present number of the MEDICAL NEWS, and, therefore, we have neither time nor space to notice it fully. It is embellished by sixteen illustrations of an interesting character. It will be remembered that recently we noticed a pamphlet devoted to the same subject.

We hope in our next issue to notice the work at length.

THE
CINCINNATI MEDICAL NEWS.

VOL. XVII. No. 197. Old Series. | MAY, 1884. | VOL. XIII. No. 5. New Series.

Original Contributions.

Some of the Unsanitary Conditions of Country Life.

BY DR. CHARLES GARDNER, HAMPTON, CONN.

Read before the Connecticut State Board of Health.

THE country possesses the advantages of pure air, green fields and sparkling waters, but we often neutralize these blessings by the commission of grave sanitary sins. The most flagrant of these sins is neglect to prevent the pollution of the water supply. The buildings stand around promiscuously without regard to the well. Throughout the greater part of this section there is a stratum of hard-pan or of bed-rock from ten to thirty feet below the surface of the ground. The earth contains some clay and holds considerable moisture. In the spring the ground is saturated with thawing snow and ice and rains, and the water filters down to the bed-rock, and flows along its surface to appear as springs where the rock crops out. The water is clear, and cool, and pure, and well adapted to all domestic uses.

A well put down to the bed-rock will generally supply water all the year. From this it follows that any saturation of the ground above the well must pollute the water supply. It seems to be thoroughly established that any place will do for a well if the top is banked up higher than the surrounding ground. We see wells in barn-yards, on the lower side of them, so that the seepage from the yard must find its way into the wells. Again we see wells under buildings, where there is no ventilation and where all manner of decay is taking place between the floor and the ground. Frequently the sink-spout delivers the liquid waste upon the surface of the ground within six feet of the well, and I have seen it nearer than that. Sometimes a trench is dug a short distance, and occasionally there is a covered drain, but that is the exception.

Privies are often on higher ground than the wells, and in such proximity as to leave no doubt that the water is contaminated from that source.

Hog pens are put close to the house to diminish the labor of caring for the swine. The floor is dug out every year and used as a fertilizer, leaving a pit from one to six feet deep. Some of these pits have water standing in them during wet weather, and have fetid mud in them all the time. This is the hog pen par excellence, as it allows porcus to take his after-dinner siesta in his native mud. To this is sometimes added the sink-waste and droppings from the closet. In very hot weather many of these hog pens become reeking cesspools, emitting an intolerable stench, tainting the air in all directions, and making men of sanitary proclivities long for autocratic power. A well situated near such a mass of filth becomes contaminated by seepage and foul air. The old oaken bucket may rise dripping with coolness and its contents may be to the eye a symbol of purity, but in reality it is a poison as potent for death as that quaffed by Socrates.

On the premises I now describe the well is twenty-six feet deep, and the top of the well is six feet higher than the floor of the hog pen. The distance from the well to the hog-yard wall is fifteen feet. It is stated that a well like this, in porous soil, will drain an area of sixty feet in diameter. The hog pen is always kept wet with sink and other waste, and as the water supply fails in dry weather, the well receives from this pestilential pool a saturated percolate, reeking with the products of vegetable and animal decomposition and heavily freighted with the germs of disease and death.

In this house four persons contracted typhoid fever in seven years. One was a walking case; three were severe cases with one death. If this house be taken as a center, and a circle be described with a mile radius, it will include twenty families and five cases of typhoid fever. The well-water left a slippery feeling in the mouth, did not quench thirst, had a foul odor, and showed that it contained organic impurities when tried by the permanganate of potassium and sugar tests.

In another locality the hog pen and closet were within twelve feet of the well. The water was unusually low, "was too bad to use.'' Three cases of typhoid fever occurred in that house at one time.

A house situated on the upper side of the street had all the surroundings in a most unsanitary condition. The privy, sink-spout and hog pen were all together, just above the well. The stench from the premises was so great that passers-by protested. On the lower side of the street, about sixty feet distant, is a tenement house containing several families. They get water from the well on the premises described above. Five cases of diphtheria, with one death, occurred in the tenement house. These cases were all sick at the same time, and, aside from the pollution of air and water, no cause of contagion could be discovered.

The practice of putting milk on shelves near the kitchen ceiling in winter, now happily almost abandoned, is fraught with danger to health and life. The milk tastes and smells unwholesome. All the vile odors of the room are concentrated in the milk, and I am satisfied disease may be communicated by it. I observed the following cases: A's child was exposed to diphtheria while visiting in a neighboring town. Five days after I was called to see him, and found a well-marked case of diphtheria. The kitchen was used as a sick-room, and a dozen milk pans stood on the shelves over his head. I directed that the pans be taken down, and the milk carried one hundred yards from the house and thrown away. B had four children. The youngest, two years old, was fed principally on milk which was bought from A. The houses were nearly a mile apart. The milk was carried by one of A's older children, who was not allowed to enter B's house. In six days B's youngest child developed a fatal case of diphtheria, and a few days later the three remaining children had a mild attack of the same disease. No other cases occurred at that time. That the contagion was conveyed by the milk seems to me the most reasonable hypothesis to account for the infection of B's child.

The milk was not ''wasted as the doctor ordered,'' but was skimmed and fed to two pigs about ten weeks old. They both died in less than a week; but this fact was carefully kept from me, and when I accidentally discovered it, it was too late to make a post-mortem.

Many of the older houses are built upon the ground with an air-space of from a few inches to a foot or two. All kinds of refuse collects in such places, and as there is no possibility of cleansing or disinfecting, no vegetation, and no sunlight, the ground becomes saturated with waste beyond its power of oxidation, and ill-health may result from this cause. Vegetable material is washed there by rains and driven by winds. Small animals carry bones and other food under the house, and perish there themselves. Drippings from the mopping of open floors, decaying wood, mold and other fungi, must, after a time, set up a condition anything but healthy. When the cold weather comes these houses are banked with earth, sawdust, leaves, manure—whichever is most available. The surface of the surrounding ground is frozen, and thus hermetically sealed. It follows that any sweating of the earth, or movements of air or gases in the soil, must work up through the unfrozen ground under the house. As the temperature is always above the freezing point some decomposition goes on all the time, these gases mingle with the others, and all winter rush through the cracks in the floor into the living rooms above. Fortunately, most of that class of houses have been rocked by the wind, shrunk and warped by sun and rain, until the entrance of pure air from without balances in most cases the vitiated air from beneath.

Most cellars are constructed so they can not be ventilated. They are dark holes under part of the house. Sometimes there is a small window, but this is banked up in winter. Here apples and potatoes rot, cider works, the food gathers mold, and sunlight never comes. The walls are mildewed and wet, the floor joists rotting, the air is oppressive, and damp, and chill, and dead. The light burns dimly, but "it is the best cellar in town for keeping cider."

When I point out these defects, I am often asked, "Why don't we have more sickness?" The answer is plain. When the ground is frozen oxidation is at a minimum or entirely in abeyance, and as the waste can not penetrate the frozen earth it accumulates on the surface.

The spring thaws and rains wash it away while the ground is yet frozen, distributing it over a large surface where the earth and vegetation rapidly remove the noxious properties. The average population per house for this town is four, consequently the amount of waste as compared with the oxidizing surface of earth and plant is very small. It is when the filth is stored up, as in the cases cited, that disease follows. Another reason is, that our community is composed mainly of adults past middle life, and does not offer much pabulum for the zymotic diseases. Out of a population of 827 we have 180 of school age. Typhoid fever is a disease of young adult life. Scarlet fever and croup are children's diseases. Diphtheria may attack almost any age, but eight-tenths of the deaths are in children under the tenth year.

To discover how these diseases originate, in what the contagion consists, how it is transferred, is a most interesting field for speculation, and a most promising field for earnest workers.

Do bacteria cause the disease or only carry the contagion? Can these diseases originate, *de novo*, from unsanitary conditions, or must there be a living morbific principle derived from some preceding case? Can foul exhalations produce typhoid fever in one patient, dysentery in another, and diphtheria in the third? These are mooted questions. In diphtheria, some pathologists say: "No bacteria, no diphtheria." In culture fluids we see a constant struggle for supremacy going on between different species of bacteria. We know that they may become more or less malignant by the conditions of culture, and it is reasonable to believe that the same thing takes place in the human body, one kind crowding out another, becoming harmless or virulent as conditions favor. Drs. Wood and Formad say substantially (Sup. No. 17, National Board of Health): It seems altogether improbable that bacteria have any direct function in diphtheria, that they enter the system as bacteria, and develop as such in the system and cause the symptoms of diphtheria. It is, however, possible that they may act upon the exudation of the trachea, as the yeast plant acts on sugar, and cause the production of a septic poison which differs from that of ordinary putrefaction, and bears such relation to the system as to, when absorbed, cause the systemic symptoms of diphtheria.

The practical points are:

That the zymotic diseases are diffused by a miasm or contagion, and that unsanitary conditions, even if they do not generate the morbific principle, afford it a genial habitation, and thus directly aid in the diffusion of these diseases.

That they may be largely, if not entirely, prevented by isolation, vaccination, and proper sanitary precautions.

In Connecticut, last year, there were 1,100 deaths from these diseases. Six hundred and fifty children under the age of ten perished. Dead from preventable diseases, might truthfully be written on nearly every tombstone. Lives wasted with all their wonderful possibilities. What are these

Herods that make such havoc among our little ones? Are they mighty kings before whose omnipotent decree our bruised hearts must bow in hopeless, voiceless agony? No! They are low-born ruffians, begotten of decomposition, nurtured amid stenches, perpetuated and potentized by filth. They loiter in sink-spout and pigsty, in cesspool and sewer, to seize upon our little ones, to silence their prattling voices, still their baby hands, quiet their pattering feet, and tear our treasures from us, leaving only saddened memories and churchyard mounds. Little mounds, but to our aching hearts "wider than the star-sown vagues of space."

Synopsis of a Lecture on the Treatment of Chancroid and Syphilis.

BY JOHN ASHHURST, JR., M.D.

Delivered before the Philadelphia County Medical Society, January 9, 1884.
Reported for the MEDICAL NEWS.

In introducing his subject, Dr. Ashhurst said that, as he believed that chancroid and syphilis had no connection with each other, except that they were commonly acquired under similar circumstances, it might seem strange that he should join them together in speaking of their treatment. The explanation, he said, was that two years ago, when he had had the honor to address the Society on the diagnosis of chancroid and syphilis, the Society requested that on some future occasion he would speak on the treatment of these two affections. In obedience to that request he had the honor to appear to-night.

THE TREATMENT OF CHANCROID AND SYPHILIS.

If any constitutional treatment is demanded in chancroid, it is such as is indicated by the general condition of the patient. Chancroid requires local treatment, but as syphilis is a constitutional affection, its treatment is constitutional or general. Local treatment is required for certain manifestations of syphilis, but the treatment, *par excellence*, is constitutional.

Speaking first of the treatment of chancroid, we may recognize three plans which have been adopted.

First, That form of treatment which aims to abolish the whole thing at once, that is, by excision. There are certain maladies in which, by this plan, we can get rid of the disease entirely, as in the case of certain tumors. So a local disease, which has begun in one or more spots, should theorectically be removable by cutting away the diseased tissue. This plan has, however, been tried and found wanting. The great objection to it is that the wound almost inevitably becomes inoculated by the chancroidal matter, and that the resulting sore is larger than the first one was, thus rendering the ultimate condition of the patient worse instead of better.

The second form of treatment, and that which I advocate, is one which aims not to remove the disease at once, but to favorably modify its future progress. This is the treatment by cauterization. By destroying the surface of the chancroidal ulcer, we remove its virulent qualities and leave a healthy granulating sore. The caustic application removes the tendency to spread, and converts the ulcer into a healthy granulating surface. In speaking of this tendency to spread, I refer to one of the most prominent features of chancroid, its auto-inoculability, in which it differs from the initial lesion of syphilis. Chancroid is auto-inoculable indefinitely, and I believe that cauterization very much diminishes, if it does not destroy, this property, although the pus from the chancroid is still contagious. It seems to lose, after cauterization, to a great extent, that quality which causes it to spread to other parts on the same person. In the choice of a caustic, my preference is for fuming nitric acid, applied by means of a piece of soft wood, such as the end of a match-stick. Another plan is to apply the acid by means of a glass brush, but I do not think this is desirable. Every cranny should be cauterized. Any part that escapes retains its quality of furnishing auto-inoculable pus, and the whole surface may return to its former condition ; therefore, cauterization must be thorough if it is practiced at all. When the slough, produced by the caustic, separates, the surface soon granulates and heals, but the pus is contagious to the last. If the fear of pain deter the patient from submitting to cauterization, general anæsthesia may be properly employed, or the surgeon may first make an application of carbolic acid, which produces local anæsthesia, and apply the nitric acid afterwards. It may be necessary to repeat the operation.

There are other modes of effecting cauterization ; one is the use of the carbo-sulphuric paste, recommended by French surgeons. This forms a crust, which I think is a disadvantage, as concealing the parts beneath. The solution of acid nitrate of mercury may be used, but if applied over an extensive surface it may cause salivation. It is not as well adapted to the purpose as nitric acid. The actual cautery also has strong advocates; it may be employed either with the simple hot iron, or with the Paquelin's or the galvanic cautery. These modes of cauterization are effective in cases of serpiginous chancroid—in the latter I think the hot iron the best application that can be made. The material used by many practitioners a few years ago, the nitrate of silver, is inefficient, and, in my judgment, has nothing to recommend it. Then for the after-dressing, after cauterization has been employed, we can use plain water, or lime-water or black-wash, or a solution of salicylic acid, or what is known as the "nitric acid wash" (nitric acid ƒʒ j; water O j), which is much used as a dressing in New York. When the chancroid is on a mucous surface, as in the female organs, or in any situation in which it is kept moist, a simple dry dressing of absorbent cotton or dry lint may be used; but where the chancroid is exposed, dry dressings are apt to become adherent, and wet applications are better. The dressing above all others which I think deserves attention, is iodoform. It is a comparatively recent remedy in these cases, and I think that it is the best application that can be made after thorough cauterization has been effected. It can be used in various ways, by simply dusting the finely-powdered drug over the surface, or as a wet dressing in the form of an alcoholic solution with glycerine, viz.: Iodoform ʒ ss; alcohol ƒʒ ii; glycerine ƒʒ vi. Or it may be used in the form of an ointment, 15–30 grs. to the ounce, or as an ethereal solution which evaporates, leaving a thin film of iodoform over the surface. An old remedy, which formerly had great reputation in these cases, was aromatic wine, but I do not think it is as efficient as iodoform. Another remedy, which is quite a novel one, is resorcin, an article of the phenol series. Great advantage has been claimed for it. Pyrogallic acid has also been used, as has the subnitrate of bismuth and various other dry powders. In the female, dressings, of course, must be applied with the aid of the speculum.

In chancroids at the meatus, I commonly use a solution of nitrate of silver (30 grs. to ƒ℥ j), since the contraction after the use of nitric acid might be objectionable in this situation. At the frænum some special precautions may be required. Deep cauterization here may be followed by bleeding, and it has been proposed to prevent this by the previous application of ligatures, tying the frænum above and below the seat of disease, or by employing the actual cautery. For chancroids beneath the prepuce, when this can be retracted, the best plan is to cauterize the sores and dress them in the ordinary way, either replacing the prepuce afterwards or allowing it to stay retracted, as may be thought most convenient. If, however, the prepuce can not be retracted, then the surgeon may inject a strong solution of nitrate of silver, or, which I prefer when it can be done, may pack the space between the prepuce and glans penis with lint saturated with a solution of nitrate of silver (gr. xx to *f* ℥ i). Whenever it is necessary to circumcise the patient, of course the wound should be cauterized, as it will otherwise become inoculated and itself converted into a large chancroid. As for urethral chancroids, which are very rare, cauterization can not be employed, as increasing the risk of stricture; absorbent cotton may be used as a dressing, taking care to have a thread attached by which the dressing may be withdrawn. About the rectum and anus, chancroids may be treated by cauterization, with the subsequent use of emollient enemata and opium suppositories. For the phagedænic chancroid, constitutional treatment is desirable, as in all other cases of phagedæna. Opium—one grain at night and one grain in the morning—is, I think, more beneficial than any other single remedy. In some cases it may be of advantage to remove the surface of a phagedænic or serpiginous chancroid by scraping with a scoop, and then using as a caustic, bromine, permanganate of potassium, or caustic potassa; but I think that the hot iron is the best local remedy in these cases. Syphilization has been used for chancroid, but it is of no value.

In regard to the principal complication of chancroid, the bubo, it may be two kinds, the simple or inflammatory bubo, which is nothing but an adenitis, or the true chancroidal or virulent bubo. I believe it to be impossible when a bubo first makes its appearance, for the surgeon to say of which variety it is. Of late years I have seen many more examples of the simple than of the virulent bubo. Whether or not this is because the disease, like syphilis, is gradually becoming a milder affection than it was formerly, I can not say.

In regard to the treatment of bubo, the surgeon should enforce rest in bed, if possible. Then counter-irritation should be employed very thoroughly. The best way is that suggested by Mr. Furneaux Jordan, of Birmingham, by applying the counter-irritant to the "next vascular area." The theory is that by irritating an adjacent part, the blood is caused to flow away from that originally affected. Counter-irritation is best effected by applying the tincture of iodine in the form of a broad horseshoe around the inflamed gland, every day or every other day, so as to keep the part on the verge of vesication. The skin should, if possible, not be broken, but if it is so, some soothing ointment must be applied, and the use of iodine suspended for a few days. Over the bubo itself, the dressing which I have found most satisfactory consists of equal parts of belladonna and mercurial ointments ; it is a simple resolvent and anodyne application, and is agreeable to the patient. I have also used an ointment of iodoform over the part, but do not think it as efficient as the belladonna and mercury ; nor do I think the application of blisters as satisfactory as the use of iodine. Pressure is another remedy which may be properly employed when the bubo is not painful, but which is ill-adapted to the acute inflammatory stage. If it is to be employed, pressure may be effected by applying a shot-bag over the bubo while the patient is in bed ; or by fastening a soft sponge over the part with a spica bandage applied with the thigh flexed on the trunk. If the bubo suppurates, of course it should be opened. Various plans have been suggested, but I do not think there is anything as efficient as a moderately free incision ; and the direction in which this is made is a matter of considerable importance. I find that practitioners generally open buboes in the line of Poupart's ligament, but I think that an incision in the long axis of the patient's body is the best, supplemented, if necessary, by small transverse incisions on one or both sides. If the lips of the wound are kept apart, so as to allow the pus to flow out readily, the process of healing is much more rapid. Multiple punctures have been employed in opening buboes, and the introduction of a seton has also been suggested ; in case phagedæna attacks the bubo, the use of the continuous hot bath has been proposed. My experience is here, too, in favor of the use of opium, locally and internally, and, if cauterization is necessary, the application of the hot iron. I think that there is an advantage, as regards the bubo, in a thorough cauterization of the original chancroid at the beginning. Bumstead and Taylor recommended that cauterization should be employed if it can be done in the first ten days; but if it is desirable in the first ten days, it seems to me to be proper at any period. These gentlemen believe that by early cauterization the patient will escape virulent bubo, and that even if an inflammatory bubo exists, its course will be favorably modified. I am aware that a directly contrary opinion is held by some surgeons, who believe that the risk of bubo is increased by cauterization, but as far as my own experience goes, it confirms the teaching of Bumstead and Taylor.

If the surgeon is satisfied that he is dealing with a chancroidal or virulent bubo, simple incision is not sufficient. Here suppuration occurs first in the periglandular areolar tissue, and it is of great advantage to enucleate the infiltrated glands before they become disintegrated and inoculate the surrounding tissues with chancroidal matter. If the case is not seen until the whole wound has become inoculated, then I would slit up all sinuses, remove the thinned, overhanging skin, and cauterize the whole surface with nitric acid, the patient being under the influence of ether.

The third plan of treatment, which is the fashionable treatment just now, is the use of simple dressings such as I have advised for the after-treatment, without employing caustics. There is no doubt that healing will, in most of the mild, superficial chancroids met with at the present day, ultimately take place without cauterization, but I think the cure will be more certain, more rapid, and more likely to be free from complication, if the chancroid be cauterized in the way that I have recommended.

Treatment of Syphilis.—Syphilis is a constitutional affection and demands constitutional treatment. The principal remedies are mercury and iodide of potassium. These have been given for many years, and yet it has never been satisfactorily determined in what way they produce their effects. Probably it is safest to say that they act by eliminating the syphilitic poison and producing absorption of the gummatous and inflammatory deposits. No doubt, according to modern theories, they might be supposed to act by destroying syphilitic germs, but that suggestion opens questions in transcendental pathology into which this is not the time to enter.

For the convenience of considering the treatment of syphilis, we may divide its course into the primary, secondary and tertiary stages.

The lesions of the primary stage are the initial lesion (or chancre) and the bubo which accompanies it. Now in regard to the treatment of primary syphilis, I believe that the surgeon will do well to put his patient under mercurial treatment, provided that he is sure of his diagnosis. This view is opposed, however, by some authorities, for whom I have great respect. My practice is to give mercury; and the best form in which it can be given, in the primary stage, is the green iodide or protiodide. I have been in the habit of prescribing this preparation in pills with opium alone, or made up with a confection of opium as an excipient; it has the advantage that it can be used a long while without causing salivation, and it is, moreover, efficient. I think that this is the safest mode of treating syphilis in the primary stage, but no patient should be placed on a mercurial course unless the surgeon is well satisfied that syphilis is actually present.

In regard to the local treatment of primary syphilis, the principal point is cleanliness; but local treatment is not of much value. Iodoform may be used as a dressing for the chancre, as it may for the ulcerative lesions met with in the later stages of syphilis. Cauterization is of no service. I do not believe that secondary symptoms were ever prevented by cauterizing a chancre.

There is another form of treatment which has some evidence in its favor, and that is the excision of the chancre.

Until within a few years the view of surgeons was that a chancre should not be excised except under special circumstances, as when occurring on an elongated prepuce, but within recent years the excision treatment has been revived, particularly in Germany, and in this country it has been advocated by Dr. White and others. To those who, like myself, take the view that syphilis is a constitutional disease from the beginning, and that the initial lesion, chancre, is but its first manifestation, of course the excision treatment seems somewhat unphilosophical. I have no personal experience in this form of treatment, but the weight of evidence from what I have been able to read concerning it, seems to me to be against it. This, moreover, appears to be the prevailing view among the leading specialists in venereal affections in New York.

As regards the bubo of syphilis, no special treatment is required, though I have sometimes thought that I have derived advantage from the application of iodoform ointment.

In the treatment of the secondary stage of syphilis, of course mercury is the great remedy. Iodide of potassium is used by some surgeons in the primary stage, but for secondary syphilis all are agreed to use mercury. It should be introduced gradually, to prevent salivation on the one hand and intestinal irritation on the other. I think the best way in which it can be used is by inunction. I recommend the patient to rub ordinary mercurial ointment, or an ointment of the oleate of mercury, into the inner side of the thighs, using fifteen grains each morning and night, half a drachm altogether in the course of the day. If this seems too much, the remedy can be suspended for awhile, and then used in diminished doses. Another good plan is to apply the ointment to the soles of the feet, wearing woolen stockings; the place of application should be frequently changed so as to avoid the occurrence of mercurial eczema. Before each application, too, the skin should be thoroughly washed and dried. In cases of infantile syphilis, Brodie's plan of putting the mercurial ointment on the belly-band is a good one.

If a patient objects to inunction, then mercury must be given by the mouth. The old-fashioned blue-pill is one of the most efficient preparations, if it is given cautiously; or the iodide may be used, or the bichloride, which, however, I think less useful than the others. Mercurial fumigation is a good method of treatment in certain obstinate forms of cutaneous syphilis, but is too troublesome for ordinary employment. Another mode of administering mercury is by hypodermic injections, usually of from $\frac{1}{12}$ to $\frac{3}{8}$ gr. of the corrosive chloride, though almost any preparation of mercury may be used hypodermically. I do not think that this plan presents enough advantages to counteract its disadvantages, and believe that it should be reserved for exceptional cases.

For mucous patches constitutional treatment must, of course, be continued, and as a local remedy, the solution of acid nitrate of mercury may be applied, being then followed by some simple dressing, such as black-wash, and iodoform afterwards. Another plan, recommended by Conradi, is to use a strong solution of nitrate of silver, and then to apply metallic zinc. For syphilitic sore throat, gargles of chlorate of potassium may be employed, or cauterizations with Liq. Hydrarg. Pernitratis; or dilute hydrochloric acid may be applied with an atomizer. For syphilitic iritis, I have been favorably impressed with Carmichael's mode of treatment, which consists in the administration of oil of turpentine in large doses. I have often used this with great advantage, but have on the other hand sometimes found it to fail, and have had to come back to mercury. The oil of turpentine is given in large doses (*f*℥i) three times a day, in emulsion with gum and sugar, with a few drops of the tincture of opium to prevent strangury. The most important point in the treatment of iritis, however, is the local use of atropia. For alopecia, cantharidal washes may be recommended.

In the tertiary stage of syphilis, iodide of potassium is the chief remedy. Mercury is useful in the treatment of the dry eruptions and of interstitial orchitis, but not in the gummatous affections, where iodide of potassium is preferable. At the same time tonics must be given, as indeed in the secondary and primary stages also. An expectant plan of treatment has been suggested for syphilis, but it is not to be recommended, nor would I favor hygienic and tonic treatment by itself, though in connection with specific treatment it is of great value. A patient who lives a regular life, avoiding the use of tobacco and alcohol, and at the same time pursuing a proper course of treatment, has a better chance of recovery from syphilis than one who neglects hygienic measures.

In giving mercury for syphilis, there are two plans of proceeding: one in which small doses are given continuously for a long time, as particularly advised by Dr. Keyes, of New York; and the other, which seems to me more philosophical, in which the drug is given "*coup sur coup*," that is, in successive courses with intervening intervals. The doses should be moderate, and salivation should be avoided. The best way is to give mercury cautiously until the symptoms are relieved, or a few weeks longer, and then to suspend it altogether. Then, if there are any fresh symptoms, the administration may be renewed.

It has been proposed by Mr. Venning, as a test to determine when syphilis has been removed from the system, to examine the condition of the inguinal glands. If there is any induration remaining, the patient is still syphilitic.

Iodide of potassium may be used very freely in syphilis. Formerly, five grain doses were ordinarily given, but from eight to ten grains is now considered a fair dose to begin with, and in some cases much larger quantities must be employed. I am convinced, however, that the drug is often given in excessive amounts in ordinary cases of syphilis. I do not recommend large doses unless the disease fails to respond to smaller ones, or unless the symptoms, as in some cases of cerebral syphilis, are immediately threatening to life. The iodide may be given simply in water, or with the compound syrup of sarsaparilla, or with fluid extract of gentian, viz.:

Pot. Iod.,	gr. viii—x.
Ext. Gent. Fl.	*m* vx.

With enough water to make a teaspoonful. Iodoform has been given internally, and homœopathic practitioners have employed gold, but neither appears to have any special value. Sarsaparilla used to be looked upon as an important remedy for syphilis, but I have never found that it was of any use whatever. A remedy strongly recommended by the late Dr. Sims was stillingia. Dr. Taylor speaks favorably of the erythroxylon coca. Hot baths are undoubtedly of use sometimes in syphilis. For hereditary syphilis, mercury and iodide of potassium, in doses suited to the age of the patient, and combined with tonics, and especially iron, are of use. If a syphilitic woman is pregnant, she should undergo a mercurial course, in hope of preventing infection of the fœtus.

The discussion of this paper which followed the reading will appear in the next issue of the Medical News.

Translations from Our Foreign Exchanges.

Translated for Medical News, from the French of M. Magnon by Dr. Illowy, Cincinnati, Ohio.

MENTAL PATHOLOGY.

The Folly of Anti-vivisectionists.

Presented to the Biological Society at the Meeting held February 20, '84.

Since several years, a sentiment, an idea, altogether very praiseworthy, the love and the defense of animals against brutality and abuse, has caused the formation of societies, denominated societies for the prevention of cruelty to animals. In these centers, eminently Toophiles, they willingly forget all that remains to be done in our present social status from a philanthrophic point of view; thus, they do not hesitate to present propositions for the creation of funds to found infirmaries for old and infirm animals. In this current not well balanced, persons not mentally sound find numerous themes of which they lay hold, which they exaggerate, and which finally grow on them into a veritable delirium. It is in this manner, as we shall presently see, that the folly of anti-vivisectionists is engendered.

It is not necessary for me to say, at the outset, that it is not a question of a new pathological species, it is simply an episodal syndrome, one of the various manifestations by which hereditary folly manifests itself. It is, if you please, from an intellectual point of view, one of the psychic *stigmata* of hereditary folly.

By the side of the anti-vivisectionists must be placed the vegetarians of a particular species, those who strive for an alimentation exclusively vegetable, not as a hygienic measure, but solely to avoid the sacrifice and slaughter of animals. An example of this kind we find in a patient admitted to the hospital St. Anne, in consequence of a scandal at the abattoirs of La Villette.

This patient is a single woman, 37 years of age, whose paternal grandmother died at Charenton, and whose mother, aged 60, suffering from chronic delirium, has successively passed through the stages of unrest, of persecution, and is now entering upon the ambitious stage, which will most likely end in dementia, the disease being hardly ever arrested at the third period.

The hereditary insanity is therefore convergent in this young woman, and the sickly tendencies have manifested themselves at an early age. Always scrupulous, always fastidious, an event of great importance in her life, the breaking off of a marriage engagement, exaggerated these tendencies greatly; she persuaded herself that her betrothed, not having been able to marry her, is about to kill himself; she is very much affected, greatly disturbed, and expects every moment to receive the fatal announcement. She reproaches herself with being the cause of his death.

Moreover, she is very superstitious and becomes alarmed at the sight of a little salt or pepper scattered over the table; it is a sign of bad luck; some catastrophe is about to happen. In a similar way, the apparition of a spider troubles her and fills her for the whole day with fear.

A period of more active delirium now ensued; for some time she is possessed by hallucinations with ideas of persecution, fears and frights; persons are watching her, observing her, they conceal themselves in the cellar and listen; after a of ideas, which captivate them, very sensitive spirits, minds period of excitement, she becomes calm again, but very soon there appear phenomena of another order.

Since six months she refuses to eat meat and confines herself strictly to a vegetable diet; she is opposed to the slaughter of animals. She wants to care for the unfortunate brutes, and goes out every day with a basket of provisions which she distributes to the vagabond dogs, to the leanest which she encounters. She goes to the abattoirs, where she exhorts the butcher-boys to cease their cruel slaughter. "We have not the right to kill animals," she says to them; "the animals are brothers whom we must protect." She went into several establishments in her crusade and was arrested at the abattoirs of La Villette in the heat of her discourse.

Admitted to St. Anne, she refused absolutely to eat; she pretended the Holy Virgin inspired her, and she had to be nourished for a time with the sound. She improved very rapidly and has been restored to her family much more tranquil, but not cured.

The second patient, the anti-vivisectionist, consulted M. Charcot, who, with his usual kindness, sent her to me, at the same time directing my attention to her.

She is 40 years of age, and despite the absence of any precise instructions as to her hereditary antecedents, she has been all her life so emotional, so nervous, so impressionable, that the morbid troubles which have developed in the last five years are only more active manifestations of her native disposition.

Her solicitude for the animals is so great that when it rains at night she can not sleep, thinking all the time of the fatigues of the horses on a slippery pavement, and of the brutal treatment which the drivers, under these circumstances, usually subject them to.

The crack of a whip so moves her, that she trembles in every limb, thinking of the unhappy beast that has received the blow. One day in the rue (street) Dronot, seeing a horse struck, she fainted and would have fallen, had not some passer-by supported her.

The idea alone, of a physiological experiment, of a vivisection, as she says, causes her to shed tears, and puts her into a condition of great anguish; she would not, even to save her life or prolong it, have the smallest experiment made on an animal, and she would give, as she says, with the greatest of pleasure, her life, not to-morrow, but on the very instant, if she were promised that no animal should be sacrificed in the future.

This disposition of mind, this incessant preoccupation, renders her life intolerable, drives her to the most extravagant and ridiculous acts to save an animal, cat, horse, dog, frog, turtle, from trouble or evil. Hardly on the street, her work of protection commences; she picks up the pieces of glass, for fear that a horse, in falling, might hurt itself thereon. One day, whilst out in the toilette of a lady, she passed more than half an hour in this work of the rag-picker.

Living on the outskirts, in a locality where it was proposed to erect new buildings adjoining her house, she wanted to have the street paved with rocks, in order to prevent the heavy carts loaded with building material from sticking in the mire on rainy days, and save the horses from numerous useless blows; but at the last moment she decided to move away, not feeling in herself the force or the courage to hear the cries, the oaths and the blows of the carters.

Arrived at a carriage-station, she remonstrated strongly to any one who will take the vehicle at the end of the line, because the horse, only lately arrived, is still fatigued; she can not help recriminating when she sees any one choosing a vehicle whose horse is just munching his oats.

One morning, whilst passing the shop of a coal vender, she sees this man maltreating an old horse who will not go into the shafts; she begs him not to strike the horse any more; then approaches the animal, speaks kindly, caresses it, and ends by leading it into the shafts. Before leaving, she asks the coal vender at what hour in the morning he harnesses up, and the next morning, at the hour indicated, she is on the spot and asks the favor of being allowed to harness up the beast. Her request is granted with laughter by the coal vender. She came back every morning for several days, until the animal, more docile, could be hitched up without any resistance on its part.

Caring neither for anybody that may be present or for the place, she inveighs against the carriage-drivers for beating their horses. I would prefer, she says, to receive the blows myself, than see an animal struck.

If she sees a horse fall, she runs up at once and forces the driver to unharness it, so that it may get up with greater facility. If he refuses, she sits down on the beast, notifying them that she will not budge until the horse is detached.

If she sees an animal sorely hurt she hastens to bring him succor; "I am oblivious of everything," she says; "do I not even see the crowd that surrounds me and which is often hostile. I do not remain inactive," she adds, "I try to get some oats, some carrots, water I give him to drink myself, I raise its head, wash out its nostrils with my handkerchief; I put straw under its poor head; I do all I can to soothe its last moments, and I protect it against the cowardly and cruel crowd; the animal has in its last moments what it never had in life—a friend."

One day she offered a thousand francs that a horse that had broken its leg be killed on the spot, and not made to suffer by transportation first to the horse-killer. At another time she purchased for 150 francs an old, attenuated horse, placed it in board, paying therefor 75 francs per month, and thus, as she says, prolongs its existence for five months.

Another day she feels badly after picking up a dog whose paw had been crushed by the wheel of a vehicle. She gathers up the miserable curs she encounters in the street, and either takes them home or places them in board.

She has made a will in favor of five or six dogs, whom she takes care of at home. She has left each one 25 francs per month, but fearing that this may not be sufficient, she intends to increase it. She recounted to me with great encomiums, how a lady, a *protectress*, had, for several days in succession, bought all the frogs offered for sale at the fish market, to prevent their getting into the hands of vivisectionists.

At the investigation of another patient, of whom we shall speak further on, she wrote to different journals against M. Paul Bert, Brown-Sequard, Laborde, etc. Here is a passage from a letter she addressed to me December 7th last, and which once more demonstrates her compassionate nature:

"It snows; it is growing cold; an increase of suffering for the poor horses. You can not imagine what I suffer when thinking of the sufferings of the poor, unhappy brutes. I pray you, I beg you, if you have any influence with M. Laborde and other vivisectionists, employ the same in favor of the horse. An animal that renders so many services to humanity has a claim upon our pity."

Besides this love for the most unfortunate beasts, which keeps her constantly in an emotional state, she presents a fact important to be noted from the point of view of psychic stigmata of hereditary folly; she presents bizarre notions of order. Fears of contact of certain objects, fears analogous to those associated by M. Falset with that form of folly designated by the name, the folly of doubt, and which is nothing else than an episodal syndrome of hereditary folly. Our patient can not bear the least speck of dust upon her furniture, and she dusts off everything after her servant. Before using a vessel she passes it through water, although it had already been previously washed. She never uses a napkin that has come from the washerwoman without first soaking it in water and drying it. "I never wash my face with a napkin just come from the washerwoman, without previously soaking it in water;" and still she says, "I can place my face without the least disgust against the snout of a horse; I dress the wounds even of the most disgusting animals without the least repugnance."

She washes herself more than twenty times a day; at home she is constantly in motion, and in her apartments is always afraid she has not enough air. She has hyperæsthesia of the senses, more particularly that of hearing; she can not bear the tread of servants; she makes them leave off their shoes and wear slippers, which do not make the least noise.

This is the anti-vivisectionist; melancholy, modest, good, who has only one aim in life: to do good to unfortunate animals.

Another example will show us the anti-vivisectionist ambitious, militant, for whom the pretended love of animals is only a pretext for noisy demonstrations.

The case is that of a lady 38 years of age, whose mother, suffering from chronic delirium, died at the end of twenty years in dementia. This anti-vivisectionist is very bustling, very aggressive, in a word, a veritable heroine of the kind. Like many others with an hereditary taint not well balanced, she is not lacking in spirit. She addressed me these few words before coming to see me: "I do not think monsieur, that it will be simply as a pathological case that I shall have the honor of presenting myself before you. Nevertheless, I shall not feel myself humiliated thereby, for it seems to me that, in our epoch, madmen and fools are almost the only persons worthy of esteem."

She experiences a certain satisfaction in relating the active part she took in the campaign against experimental physiology. She has, she says, the spirit of the future. She is the progress, the light; she does not care to belong to the well-balanced *juste milieu*—to have an intelligence of the ordinary level, an equable spirit; in these conditions one accomplishes nothing. She does not care to respect the reserve of her sex; she has emancipated herself from all these ridiculous conditions, and if necessary, does not fear to swear and use spicy language. She is courageous, and does not fear the struggles; she wants to support the feeble. Physical suffering moves her but little, she marches onward; she hates humanity which is wicked, and loves the beasts.

If, by an experiment upon an animal, she could save the life of her son, she would formally oppose it, as she would not wish to save the life of her son at the expense of the life of an animal. Human suffering moves her but little, while she becomes very much affected at the sight and the idea of the suffering of animals. She takes pleasure in relating that she is detached from all human affections; she loves her son because she governs and controls him, and hopes to bring him up in hatred of the human race and great love for animals. She esteems her husband, considers him a friend, a companion, and if she has any other feeling for him, it is only the result of habit.

Some years ago, she collected about a dozen cats, which she kept in her apartment; as these were in the charge of the public administration, she was directed to disembarrass herself of them; she persuades her husband to give up an advantageous position rather than separate herself from her cats. Now she has but five or six; she takes great care of them and bathes them from time to time; sometimes they scratch, but she does not mind it; puts them in a bag until they are dry; she watches them closely, and gets up at night to throw out their excrements and keep them properly.

This strange contrast between this incessant preoccupation with the animal world, and the total indifference to human beings, is an anomaly, which, with the lucidity of mind these patients possess, might surprise us, but which regarded clinically, becomes an ordinary fact, if we take into consideration the eccentricities and singularities of intellectual degeneration.

I must relate one more occurrence. At the Congress of Norwich, 1874, just as I was to begin my experiments demonstrating the comparative effects of alcohol and absinthe, the hall was invaded by several individuals, at the head of whom marched a veritable demoniac, and with a glistening eye and injected face, she cut the cords holding one of the dog's paws; she was about to continue when I quietly removed her and begged two assistants to hold her, absolutely the same way as I am accustomed to do with certain insane persons when agitated. I continued my demonstration. I regret that I could not obtain any information as to the antecedents of this impulsive person, but I am positive some hereditary taint would have been found to explain this strange paroxysm of rage.

In resumé, these facts show us once more how multiform are the appearances under which hereditary folly manifests itself. In those intellectually degenerated, everything may, in fact, become the cause of a delirium, and thanks to their predisposition, they need not, to reach the period of systematization, pass through the slow stages, progressively and methodically made by those suffering with delirium.—*Tribune Médicale*, '84.

Michigan State Board of Health.

Reported for The Cincinnati Medical News.

The annual meeting of the State Board of Health was held at its office in Lansing, April 8, 1884.

The members present were President Avery, Drs. Lyster, Hazlewood, Vaughan, Tyler, and Secretary Baker.

Reports of the sanitary condition of the Wayne County poor-house and asylum, and of the Barry County jail, were made by the Comittees who examined these institutions; and these reports were ordered printed.

Dr. Vaughan read a paper prepared by Dr. C. P. Pengra, which gave results of investigations relative to the purification of water by freezing. As a result of a series of elaborate experiments conducted in the University laboratory, Dr. Pengra found, that contrary to the general impression, freezing does not render water pure. Ordinarily he found less infusoria and bacteria in ice than in the water from which it was frozen, but the ice contained them in numbers sufficient to preclude its use. In harvesting ice. the greatest care should be taken to get it from a pure source. This valuable paper will be published in the Report of the Board.

The Secretary presented a summary compiled from lists of medical practitioners, registered under the new law. The number of counties in the State is 80; from 76 of which reports have been received. The number of registrations returned is 3,285, but in some cases physicians are registered in two or more counties. The number reported to have graduated is 2,351; those who had attended some college but had not graduated, 208; those who had attended no college, 726. The number belonging to all schools, reported as having graduated is 72 per cent. of the whole number; the non-graduated collegiates are 6 per cent., and the non-collegiates are 22 per cent. of the whole number. The "graduates" are from all classes of medical colleges, hospitals, medical societies, etc. The number of different "schools" of medicine reported in the sworn statements is about 75, including "Cureopathic," "Indian," etc. In at least one instance it is reported that the sworn statement had to be signed by a "mark," the practitioner being unable to write even his own name. The number registered as belonging to the four most prominent schools of medicine are as follows: Regular, 1,533; Homeopathic, 490; Allopathic, 398; Eclectic, 366. The proportion of graduates to practitioners is: Regular, 87 per cent.; Homeopathic, 74 per cent.; Allopathic, 81 per cent; Eclectic, 47 per cent. (Of all schools, as above stated, the per cent. is 72).

It was decided to print the names and addresses of the health officers in Michigan as soon as full returns are received. The number in the State is nearly 1,400. A new edition of the document on the prevention and restriction of scarlet fever was ordered, the last edition of 30,000 copies being nearly exhausted. It was also decided to publish facts relative to several outbreaks of trichinosis in Michigan.

The following resolutions were unanimously adopted:

Resolved: That this Michigan State Board of Health respectfully and earnestly memorializes Congress to pass the bill, introduced into the House of Representatives, Jan. 8, 1884, by the Hon. Casey Young, or of some similar bill, providing for the prevention of the introduction of infectious diseases into the United States, and for procuring information relating to climatic and other conditions affecting the public health.

Resolved: That we consider the National Board of Health the best existing and the proper agency to carry on the work mentioned in the preceding resolution.

The Board discussed the merits of several text-books on physiology and hygiene with special reference to the effects of alcohol on the human system, and approved for use in the schools: Martin's "Human Body," briefer course, second edition, containing special chapter on alcohol and other narcotics; and Dr. Eli F. Brown's "Alcohol: Its Effects on the Body and Mind."

The amount of office-work during the quarter has been large and has included the perfecting of arrangements for holding a Sanitary Convention at Hillsdale; preparation of the proceedings of the Ionia Sanitary Convention for the printer; the making of a compilation of the public health laws of Michigan; proof-reading on 96 pages of the Annual Report; issuing blanks for the return of the new health officers in each city, village, and township in Michigan; issuing the regular weekly bulletins of meteorology and of sickness in Michigan; the correspondence of the office (postals are not usually copied) covering 750 pages of letter-copying book, of which over 150 pages have direct reference to the prevention and restriction of communicable diseases in Michigan; and the regular computations of data relating to meteorology and sickness.

Selections.

New York Pathological Society.

GEORGE F. SHRADY, M.D., PRESIDENT, IN THE CHAIR.

Weigert's Method of Staining the Nerves and Central Nervous System with Acid Fuchsin.

DR. T. MITCHELL PRUDDEN showed a series of microscopic preparations, histological and pathological, which illustrated the above method, and said: "Although this method was announced more than a year ago, it has not, I think, received the attention which its merits deserve. Its value for the demonstration of pathological as well as normal structures justifies its presentation before this society. The staining agent is the so-called acid fuchsin, which is rosanilin, in which one atom of H is replaced by the radical SO_3H. That is, it is a sulphate of rosanilin. It thus belongs to the class of acid anilines, and is not a nucleus nor a bacteria stain. It stains tissue diffusely, stains all the structural elements alike. The color is removed by solution of caustic potash, but as the nerve-fibres hold the colors more tenaciously than other elements, we can obtain, by stopping the decolorizing action of the alkali at the proper moment, a sharp differentiation of the nerve-fibres. The nerve-cells are not especially stained by it. Thus far only one particular preparation of acid fuchsin has been found to give good results. This is prepared at the Baden anilin factory and is known as acid fuchsin S.

" Weigert was unable to get good results from the preparations of any other house, and my own experience is the same. This preparation may be obtained in small quantity from Dr. Grübler, 17 Dufour Street, Leipzig. I will briefly summarize the details of this method of staining.

"The tissues must be carefully hardened in solutions of bichromate of potassium or in Müller's fluid. Alcohol should only be used, if at all, at the end, to complete the hardening. Thin sections are stained from one to twenty-four hours (it is not easy to overstain) in a saturated aqueous solution of the fuchsin. The decolorization and differentiation is accomplished by a saturated alcoholic solution of caustic potash diluted with alcohol in the proportion of one to ten. The exposure to the alkali is the delicate part of the operation, for too long an exposure will remove the color from the section altogether. In most cases it should remain not longer than five or six seconds, being moved to and fro in the fluid. The color will be discharged into the alkali. It should be now immediately transferred to pure water, which should be changed two or three times to insure complete removal of the potash. The section may now be dehydrated with alcohol, cleared up by oil of cloves, and mounted in balsam. Or a double staining may be obtained by the use of hæmatoxylin before dehydration. The outlines are sharpened and the color somewhat intensified by dipping the section after removal of the alkali for an instant into a solution of hydrochloric acid and water, 1 to 5. In such preparations the connective-tissue elements have a diffuse grey or violet color, and their structural details are not distinct, but if hæmatoxylin be used the nuclei are stained purple. Although not especially stained, the nerve-cells may be seen with great distinctness. The nerve-fibres, on the other hand, stand sharply out in light or deep red. It seems to be the axis cylinders and portions of the myelin which are stained and certain of the non-medullated fibres of the gray matter. It is difficult to speak in praise of this method in terms which will not seem extravagant to those who have not seen its results. It is not only the exquisite distinctness with which nerve-fibres and bundles, which we have been accustomed to see more or less clearly by the older methods, stand out against the diffusely stained background, but the marvelous wealth of finer and coarser fibres of whose existence the ordinary methods give but faint intimation, which seem to promise for this method the most useful results. The qualities which render it useful in normal structures recommend it for the morbid also. I have found it particularly useful in staining the cord in locomotor ataxia, in secondary degenerations, etc., and also for determining and demonstrating the presence of nerve-fibres in tumors and other structures in which they are not present in large numbers. In the peripheral nerves it furnishes a most admirable means of demonstrating the axis cylinder.

"As verbal descriptions of the results of such a method are at best not very convincing or instructive, I have taken the liberty of sending in a somewhat imposing array of microscopes in which you may see a variety of preparations made in this way. Most of these specimens were prepared nearly a year ago, and have retained their colors with little change. It is to be regretted that you may not see them by sunlight, for the color and outline are much more distinct than by artificial illumination.

"I have laid out transverse and longitudinal sections of the normal spinal cord with both single and double stain; sections of the cord in posterior spinal sclerosis and secondary ascending gray degeneration, longitudinal sections of the sciatic nerve, and a section of a false neuroma showing scattered nerve-fibres running through it, and standing out sharply in the unstained connective tissue. I would especially commend, for the exquisite delicacy, distinctness and intricacy of the picture, the transverse section through the human medulla oblongata at the level of the olivary bodies."

Weigert's original papers are in the *Centralblatt der Medicinische Wissenschaften*, October 21 and November 18, 1882.

Dr. H. Heineman presented a specimen of

Colloid Cancer of the Peritoneum,

and also a specimen of

Sacculated Empyema.

Dr. Janeway had seen two cases of sacculated empyema this year. One was a case in which there were several sacs following pneumonia, and where his house-physician at Bellevue Hospital introduced the aspirator needle and drew off about four ounces of pus from one sac, then four ounces from a cavity below, and nearly four ounces from still another part of the pleural cavity.

In the other case it was more difficult to explain the origin of the condition. There was hydro-thorax limited to the lower tube, which disappeared after a short time, and the patient recovered. The cavity evidently had quite a limited area, with free evacuation through the bronchi.

Last week, also, he made an autopsy in a case of suddenly developed hydro-thorax, which was found to be due to a communication from a bronchiectatic cavity in the lower lobe through the interlobar fissure by a wound into the pleural cavity. In that case the pus was very offensive. The man died of sepsis from erysipelas following aspiration, and of pus in his chest.

It is very difficult to say exactly how such a condition originates with an extremely good history.

Dr. Heineman said that fetid pus was not infrequently met with in cases of empyema in which there was no communication with a bronchus, and in cases of general pyæmia, and in which the fœtor gave rise to the suspicion that there was gangrene.

Dr. Janeway said he had seen such cases.

Dr. Frank Ferguson presented

a Horse-Shoe Kidney,

removed from the body of a man who died in New York Hospital on January 18, 1884, the day of his admission. He had been suffering from extreme dyspnœa when admitted into the hospital, and said that for a few days past he had had slight difficulty with his breathing. He had been using opium for the last five years, and at the time of his death used fifteen grains daily.

His dyspnœa was relieved for a short time by the administrations of digataline and morphine. His breathing was superficial and labored; temperature 101° F.; and urine contained thirty per cent. to the column of albumen. Suddenly his respiration and heart action stopped, and ten minutes after the rigor mortis was well marked.

The real interest in the case, aside from the anomaly, was the fact that the entire organ showed well-marked parenchymatous nephritis, which doubtless was the chief factor in causing the patient's death.

Dr. Ferguson also presented a specimen of

Congenital Absence of the Left Wing of the Diaphragm.

A large portion of the intestines and stomach were in the left pleural cavity.

Large Hemorrhage into the Pons.

Dr. Ferguson also presented a brain with the following history. It was removed from the body of a Russian sailor sixty-seven years of age, who was brought to the hospital in an ambulance. His friends said that he had been sick, "paralyzed," for twenty-four hours, but that he worked out-doors the afternoon previous.

On admission patient was comatose, his surface was dry, his muscles were relaxed; his pupils were equal, contracted, and irresponsive to light. Deep and superficial reflexes were preserved. Bladder was distended with urine, which, when drawn, was found to contain albumen ten per cent. Temperate was 100°, pulse 80, respiration slow and stertorous. Both legs and arms responded to stimulation made by pricking them with a pin. One-eighth grain of nitrate of pilocarpine, hypodermically, and hot air both failed to produce diaphoresis.

11 P. M.—Patient became partially conscious, and slowly raised his left hand to his mouth, and on being shown a glass of water and asked if he wanted it, feebly bowed his head and closed his eyes in affirmation. Water was given him, and he seemed easier after it. He died at 3:20 the following morning.

The brain showed a hemorrhage into the pons, which had escaped into the fourth ventricle also, and the pia mater was so raised as to perfectly fill the space between the medulla and the lobes of the cerebellum. There was almost complete destruction of the pons. The kidney was the seat of chronic diffuse nephritis far advanced.

Dr. Janeway remarked that the statement frequently seen in text-books that the presence of albumen in the urine would serve to distinguish between uremic coma and the coma from hemorrhage into the brain was altogether erroneous, as had been proved many times by post-mortem examination. He thought the presence of albumen under these circumstances served to puzzle rather than make clear the question of diagnosis.

Dr. Ferguson asked Dr. Janeway if he had seen frequently hemorrhage into the pons with chronic diffuse nephritis.

Dr. Janeway said he had seen several cases.

Dr. Van Gieson wished to reiterate what he had before stated to the society with regard to diagnosis vibrating between coma from disease of the kidney and from hemorrhage into the brain. He thought that in most cases of coma from Bright's disease the preagnostic temperature was elevated, whereas in hemorrhage into the brain the temperature was not nearly so likely to be elevated. That had been his experience, based upon quite a number of cases.

Dr. Janeway remarked that the primary temperature of cerebral hemorrhage had been said to be depressed, in severe hemorrhage into the pons, perhaps persistently so. Whether or not there were exceptions it was difficult to say. Whether or not there was always primary depression of temperature with hemorrhage, or whether it might not occur with paralysis from some other cause, he had not been able to settle. The temperature in uræmia may be either depressed or elevated, and different statements have been made by different observers on this point. The preagnostic temperature goes high in hemorrhage into the brain, and may not be especially elevated in kidney disease. One thing which would aid materially in studying the question was the primary temperature within the first few hours.

Dr. L. H. Sayre presented, in behalf of Dr. Lewis A. Sayre, sections of liver, lung, kidney, and of the aorta, together with a portion of new growth of fibrous tissue removed from the body of a man, with the following history:

Case of ascites from compression of the liver and portal vein by chronic proliferative peritonitis; and general anasarca from hypertrophy of the heart, and general atheroma of the arteries, with chronic nephritis—tapped during the six years and five months 187 *times, removing* 19,256 *ounces or* 1,203$\frac{5}{16}$ *pounds, being more than six times the entire weight of the patient.*

H. H——, aged sixty-six, a very large and robust man, six feet three inches high, and an average weight for many years of two hundred and thirty pounds. Always enjoyed perfect health until 1876, when he had a very severe attack of pleuro-pneumonia of both sides, which for some time threatened to be fatal. He finally recovered, but his respiration was never perfect from that time. In the winter of

1878 he slipped on the stone steps at his front door, which were covered with ice, and struck very heavily in the middle of his back on the edge of the step, both feet having glided suddenly from under him. The concussion was very violent, and was followed in a few hours by almost complete paralysis of the lower extremities and the bladder. He recovered the control of his bladder in about three weeks, and almost perfect use of his legs a few weeks later. In the summer of 1879 (July), while swinging in a hammock between two trees, the rope broke near his head, and he dropped suddenly upon his shoulders, with his feet suspended in the hammock, causing a sharp curve in his back. This fall was followed by intense pain very near the seat of his former injury, and extending through to the pit of the stomach (as he described it), and it finally extended all over his abdomen, giving symptoms of a diffuse peritonitis, and all on either side of the thorax, similar to an intercostal neuralgia. These pains never entirely subsided, but required the use of hypodermic injections of morphine once or twice daily during the remaining six years of his life.

His nervous system became greatly impaired, being many times almost hysterical.

Dr. Allen, of Rutland, Vt., who saw him in consultation with me, was of the opinion that some injury had been done to the solar-plexus or great sympathetic nerve.

In August after the last accident his limbs began to swell, and his abdomen showed evidence of peritoneal effusion. This gradually increased until his respiration was interfered with and I tapped him on September 29, 1878, for the first time, removing 240 ounces, or 15 pounds. I tapped him next on November 27, 1878, removing 416 ounces, or 26 pounds. From that time on he was tapped at varying intervals, as necessity required, until the time of his death, which occurred on February 17, 1884—in all 187 times.—*Medical Record.*

The Therapeutics of Diphtheria.

BY DIFFERENT AUTHORITIES.

ALFRED STEELE,—*Local.*—Ice in mouth and on neck first stages. Alum or tannin by insufflation; muriatic acid by a brush; potassium chlorate; tincture iodine; lactic acid is a good solvent of the membrane; carbolic acid; potassium permanganate. *General* treatment is the indication, as the membrane will return till the cause is removed. Emetics may be advantageous in the early stage. "Supporting of nature is the only way to treat;" nature will eliminate the poison; in grave forms, stimulate; alcohol and stimulant doses of quinia; tincture of chloride of iron is absorbed, constringes the blood-vessels, and previous exudation; food is the greatest of all indications; opium diminishes waste and nervousness; it also aids in the appropriation of other stimulants; alcohol can be borne in large doses; fluid beef, milk, farinacea; Huxham's tincture. In cases of medium intensity, give tonics rather than stimulants. Tracheotomy is fatal in about three-fourths of the cases. It is advisable under favorable circumstances.

J. Solis Cohen.—The two main indications consist: 1. In keeping up a supply of nourishment and stimulants, and 2. In providing for the detachment and discharge of the morbid accumulations when they threaten to occlude the air passages. The sick room must be systematically disinfected. This is done by the free use of sprays of carbolic or sulphuric acid. Solutions of the sulphate of iron or some other disinfectant are kept in all the vessels which are brought into the sick room to receive the discharges, the soiled clothing, refuse food, and slops of the patient.

He regards the chlorine compounds as of more efficacy in diphtheria than all other remedies. Of these he prefers the tincture of the chloride or iron, which must be administered at frequent intervals and in large doses—from five to thirty drops, according to age and vigor of patient, should be given from every half-hour to every second hour as the case may be. It is given in glycerine and water, or in diluted syrup of lemon. Dr. Cohen prescribes chlorate of potassium very frequently in this disease—in the form of *chlorine* mixture (made of an equal number of grains of the chlorate and of drops of hydro-chloric acid, in plain or aromatic water, or in the infusion of quassia). He always suspends the use of this remedy when there are any symptoms of renal irritation produced by it.

He administers the hydrochlorate of quinia (in preference to the sulphate) as a tonic, antipyretic, neurotic and antiseptic. It is to be given in decided doses. When deglutition is painful it is given by enema, with proper augmentation of the dose.

Alcohol in the form of strong wine, or as brandy or rum, is regarded as of the utmost importance when the system begins to give way. It should be given after the earliest manifestations of decided loss of vigor. At this stage it is of more importance for the time being than any remedial agent. From f ʒss. to f ʒj. of brandy are to be given at intervals of from fifteen minutes up to three hours. As long as it is well borne it may be given to any extent short of intoxication. Children readily take a sort of syrup of brandy made by burning it beneath a lump of sugar, which becomes melted in the process. At moments of sinking he regards carbonate of ammonium as valuable. He gives from two to ten grains by the mouth, in syrup of acacia, or from eight to forty grains by the rectum. At moments of collapse the ammonia is given by intravenous injection.

The sore throat is treated by pellets of ice placed in the mouth and renewed more or less cautiously. The use of ice-compressors is not approved. It is thought better to apply warm cotton batting, spongio pilin, or an actual cataplasm, or to anoint the neck with oil, lard or cosmoline, care being taken not to abrade the cuticle lest local infection arise as a complication. Morphia is administered when great pain arises.

Morbid products in the pharynx and nasal passages undergoing detachment should be promptly removed. This morbid product is kept diffluent as much as possible by maintaining an excess of humidity in the atmosphere of the room by keeping a steaming vessel of water on the stove. The uninvaded tissues should never be cauterized. Applications of the tincture of the chloride of iron should be made to the pseudo-membrane with a swab of cotton or sponge. After this application the attempt may be made to remove the deposit by gargle, spray douche, or syringe; employing lime water as the medium. Forcible removal of the deposit is not regarded as judicious.

When the larynx is invaded Dr. Cohen keeps a constant stream of steam in motion directed over the patient's face. Whenever the respiration becomes obstructed, a few pieces of lime about the size of the fist are slacked by the bedside every hour or so, covering the vessel in which they are slacked with a hood of stiff paper, so as to direct the steam and particles of lime toward the mouth of the patient.

The use of emetics is indicated in children to provoke expectoration from the air-passages in the act of vomiting; but the same indication does not occur in adults who are able to expectorate voluntarily. If successful, the emetic may be repeated at intervals of six hours, as long as the indications continue to recur. Alum, ipecac and turpeth mineral are the most reliable agents, and may be tried in the order named; adhering to the alum if it prove efficient. Emesis should not be carried too far, or be repeated if ineffectual, as it exhausts the power of the system without any compensation in the discharge of the morbid products.—*Canada Medical Record.*

Rheumatoid Arthritis—Catarrhal Jaundice.

A Clinical Lecture Delivered at the Hospital of the University of Pennsylvania.

BY WM. PEPPER, MD., LL.D.,
Provost of and Professor of Clinical Medicine.

REPORTED BY WM. H. MORRISON, M. D.

Gentlemen:—This young woman presents the early stage of rheumatoid arthritis. We do not know what has led to its development. She is 22 years of age, has been living as a domestic and has not had to work very hard. The house in which she lives is a dry one, but she has not been careful to avoid getting her feet wet. For the past year, she has been unable to do any work. Her mother is rheumatic, but the other members of the family are healthy. In the summer of 1882, she suffered from severe pains in the joints, which came on without apparent cause.

Unlike ordinary chronic rheumatism, rheumatic arthritis does not locate itself in one or more large joints, but involves a number of small joints. In this case, it is the small joints of the hands and feet which are affected. The disease came on with pains in these joints, and they soon became swollen and deformed. This is very marked in the wrist, where the ends of the bones appear to be enlarged and the capsule is distended, not with a liquid, but with an apparently pulpy substance, so that on pressing the joint, there is a boggy, elastic feeling, but no distinct fluctuation, as in a case where there is a considerable amount of serous effusion. This appearance of the joint with the thickened ends of the bones, with the prominent ridges on the bone and the distension of the synovial sac with a gelatinous exudation, giving this peculiar elastic sensation, is characteristic of the early stage of rheumatoid arthritis. The joints affected in this case are the ones usually involved. The phalangeal, the metacarpophalangeal, the carpal and the corresponding joints of the feet, are attacked, while the elbows, shoulders, knees and hips do not become affected until a later period of the disease, and in some cases never become involved; although it unfortunately happens, that usually the disease slowly progresses from one joint to another.

This case shows the tendency of the disease to be associated with malnutrition and anæmia; although menstruation has remained regular, she has lost thirty pounds in weight during the past year. Last winter she was unable to move on account of the excessive pain in the hands and feet. At that time, the shoulder joints were temporarily affected. There is no cardiac complication and no albumen in the urine.

You will observe that a great deal of atrophy has taken place in the affected parts. This is to be explained partly by the malnutrition and partly by the disuse of the limbs. The muscles of the thumb are wasted and the interossei muscles are atrophied, giving rise to these depressions between the metacarpal bones.

A case of this kind is not to be treated as one of chronic rheumatism. There is here a grave alteration of general nutrition. The life of the patient is to be carefully regulated. The diet should be as nutritious as she can procure; ample rest should be taken, and great care in avoiding damp and exposure is required. Passive exercise of these parts is essential. In such cases as this, massage, judiciously and persistently applied, is of the greatest service. We must train her to use her own hands for this purpose, or if it is possible, she should have some person to rub and manipulate the affected parts for twenty or thirty minutes twice a day. This will not only prevent the joints from becoming rigid, but will also lead to the absorption of a great deal of this exudation, to the removal of a large part of the deformity, to restoration of the tone of the muscles, and we may hope to restoration of the bulk of the muscles. The judicious employment of massage in these cases often produces truly extraordinary results, and I am sure that without these manipulations, this case is hopeless.

I shall also use mild counter-irritation over the affected region. For this purpose nothing is better than painting with iodine. If convenient, the muscles of this region should be stimulated by the use of a gentle faradaic current.

The condition of digestion and nutrition requires careful attention. On the whole, large doses of iron are to be commended. It would be well to associate with this, cod-liver oil. I shall order for this patient fifteen drops of dialysed iron, three times a day. This will gradually be increased to a small teaspoonful in a sherry glass of water.

This will constitute the treatment. I do not think the case has passed beyond the state in which it can be relieved.

Our next patient is an elderly man who presents what appears to be a simple form of jaundice, to which I shall ask your attention for a few minutes. He is 70 years of age, and a baker by occupation. He has lost all his teeth, and for the last fifteen years has been unable to thoroughly masticate his food. Ever since he has lost his teeth, his appetite has been poor and he has suffered from dyspepsia, characterized by slowness of digestion, weight and fullness in the epigastrium, a great deal of flatulence and irregular or constipated bowels. For the past two months he has gradually been growing yellow, and he now presents a marked degree of jaundice, the yellowness being most distinct in the conjunctivæ. The urine is dark, highly charged with bile, but contains no albumen. He has suffered from no pain of any kind, but he has lost a considerable amount of flesh.

The age of the patient, and the slowness with which this jaundice has come on, would, of course, make us think of malignant disease of the liver. Jaundice in old persons should always arouse a suspicion of malignant disease, but very often the suspicion will be allayed by the physical examination, and the affection shown to be nothing more than a catarrhal jaundice. It would, however, be wrong for us to form a hasty conclusion without subjecting the hepatic region to a careful examination. Jaundice coming on in this way without grave symptoms, is due to obstruction; whereas, in this case, the condition comes on without pain; gall stones can usually be excluded. The diagnosis then rests between pressure from some slowly developing mass, gradually pressing more and more upon the main duct or one of the branch ducts of the liver, and inflammation of the mucous lining of the ducts, with swelling, thickening and obstruction. In deciding between the two, you will be governed by the duration of the jaundice, by the effects on the general health (although catarrhal jaundice with a congested state of the liver may be attended with grave failure of nutrition, marked emaciation and loss of strength), by the presence or absence of pain, by the previous existence of evidences of gastro-duodenal catarrh, by the results of physical examination of the liver, and by the effects of treatment. Mere enlargement of the liver would not be sufficient to justify the diagnosis of a morbid growth, because in cases of chronic congestion of the liver with catarrhal jaundice, the liver is almost always enlarged and may extend three fingers' breadth below the margin of the ribs, presenting a thick edge and a smooth surface. When a morbid growth is present, the organ is usually irregularly enlarged; the whole organ may be enlarged, but there will be projecting masses; boscillations will be felt over the organ and nobby projections from its edge. In enlargement from simple congestion, the organ retains its natural contour and proportions.

In a case like the present one, the diagnosis rests largely on the result of the physical examination. The history that the man has for a long time been suffering from gastro-duodenal catarrh, would, of course, predispose us to attribute the jaundice to a catarrhal condition. The abdomen is moderately distended. There is marked resistance to pressure in the epigastrium and right hypochondriac regions. I find it difficult to isolate the edge of the liver, but it is clear that the organ is greatly enlarged. The liver dullness extends three inches below the margin of the ribs in the line of the nipple, and also in the epigastrium. The upper edge of dullness is at the middle of the fifth rib; so that the vertical line of hepatic dullness measures at least six inches. The enlargement is uniform, and I can detect no hard masses or nodules. The organ appears to be of its normal consistence. The left lobe is also enlarged, but not to the same extent as the right. There may possibly be nodules on the under surface of the liver which we are unable to reach. So far as it goes, the examination is satisfactory. But, owing to the possibility just mentioned, the case is one to be viewed with suspicion.

It is of course to be treated on the most hopeful theory. Even supposing the worst, all that could be done would be to palliate. The food must be soft and digestible and thoroughly masticated. It should consist of porridge and cream or milk, soft boiled eggs, oysters, baked potatoes, bread and butter, and buttermilk. Solid meat I should for the present avoid. Very rich articles and much fruit I should consider unsuitable. To regulate the bowels, a glass of water with lemon juice, or a teaspoonful of Vichy, Carlsbad or Rochelle salts should be taken before breakfast. Possibly a glass of very hot water before breakfast will be sufficient. I shall order iodide of potassium, beginning with three grains, three times a day, and gradually increasing the dose to ten grains. If symptoms of iodism are produced, the dose will be lessened. If the inflammation were more active, I should use nitrate of silver, but there is so much enlargement of the liver that I am anxious to produce a resolvent action as quickly as possible.

The treatment which I have indicated will be kept up for two weeks, at the end of which time I will have him report its effect.

The Treatment of Violent Delirium in Fever Cases.

Dr. J. W. Allan (*Lancet*): The management of violent delirium constitutes one of the most difficult tasks to those having the charge of fever cases. The following remarks are meant to apply to typhus and enteric, and to severe attacks of delirium in these diseases.

Mild muttering delirium clearly does not call for active treatment; it is best met by such gentle measures as shaving the head, applying evaporating lotions to the scalp, sponging the skin with lukewarm water and vinegar, etc. Even that form of delirium, common in typhus, in which the patient insists on getting out of bed to go to his work, etc., may generally be controlled easily by a skillful nurse, who has only to use persuasion and gentle restraint to keep the patient in order. Sometimes such cases insist on sitting on a chair by the fire or going round the ward on a tour of inspection, and I have known an old and experienced nurse gratify these whims with the best possible result. The patient gladly returns to bed after the exertion, feeling tired in body but satisfied in mind, and frequently falls into a refreshing sleep. Of course such liberties could be accorded in certain cases only, and under the personal supervision of an old experienced nurse. The cases which are difficult of management are those in which the delirum assumes a wild or fierce character. The worst cases of all are those in which there is pulmonary complication. When a muscular young man is seized with a violent delirium at an early stage of illness, before his strength has been seriously impaired, great trouble is usually in store for those in charge. As a rule the patient is in a state of terror or apprehension. He thinks that he is in danger of being murdered, or he believes that he is about to be consigned to hell fire. He is simply desperate, and this constitutes the great danger of the case. Sometimes he is cunningly planning his escape. At this stage he must be closely watched. There is a peculiar look about the eye, not easily described, but once seen readily recognized again. There is also change of manner; questions are answered abruptly, or an obstinate silence is maintained. The man is in a dangerous state; a violent attack may occur at any moment. Every trivial action, every careless word of the attendants, has for him a sinister meaning. Without warning he may spring from the bed and dash through the window. The probability is that the patient has not slept for some time, and, recognizing his dangerous condition, the medical attendant is naturally anxious to administer a draught, so as to secure deep, refreshing slumber. But, to his great annoyance, the patient absolutely and doggedly refuses to swallow a drop, and for the very good reason that he believes an attempt is being made to poison him. This reminds one of the notions of the insane; and there can be no doubt that the delirious patient is temporarily insane. It may be that the attempts to get him to swallow the draught have roused the man to active resistance, and his violence may be so extreme as to necessitate the help of several persons and the application of mechanical restraint. The latter should never be resorted to when it can possibly be avoided; but when it must be employed, let it be done quickly and effectively. Plenty of help should be obtained, for if the patient is strong, and one or two persons try to put him under restraint, the result may be a severe and prolonged struggle between the patient and attendants—an exasperating kind of exertion, which is bad for all concerned. The patient should be gently but firmly overpowered, when, as a rule, feeling helpless, he will submit. The "jacket" and "sheet" should then be employed, great care being taken to make sure that the long sleeves of the jacket are bound firmly round the patient's wrists, otherwise he will withdraw his hands and soon set himself free. When the jacket and sheet have been properly adjusted the patient is secure, but it is not desirable that he should be kept tied up a minute longer than it is necessary. If he still refuses to swallow the draught, what is to be done? A hypodermic injection of morphia might be given, but I confess to a prejudice against this practice in fever cases, from a fear of causing local irritation, boils, etc., and, besides, the pain inflicted by the thrust of the needle, though slight, would confirm the patient in his belief that he was in the hands of the enemy.

I find the following method to work well: Morphia suppositories are administered till the patient becomes quiet and drowsy. He is then manageable. The jacket and sheet can be removed and warm, dry flannels, etc., put on. The probability is that he can now be got to take a draught, or at least to swallow passively. If he still refuses, morphia suppositories can be administered as required. As to the nature of the draught, I may state that I adhere to the hydrate of chloral, long ago tried and recommended by Dr. James B. Russell, in the treatment of fever cases. When there is simply insomnia, twenty or twenty-five grains of chloral hydrate in syrup (repeated, if necessary, in an hour), generally secures good sleep for an adult. When, however, there is violent delirium, the addition of five or ten minims of solution of muriate of morphia causes the end in view to be more rapidly and effectually attained. But this combination of chloral and morphia is well known to be a formidable one; it requires to be carefully administered, and the effects must be closely watched. When the narcotics require to be given for a long time on account of persistent delirium, it is convenient to prescribe a mixture, each dose of which contains ten grains of chloral and five or ten minims of solution of muriate morphia, the interval between the doses being determined by the effect produced. Respiratory embarrassments, lividity of nails, etc., are serious contra-indications to the use of narcotics. When suppositories and draughts have both been given in a case, this should be well borne in mind so as to estimate the combined effect. In the treatment of violent delirium in fever, narcotics wisely given may save life; improperly given, they may hasten, or even directly cause, death. In prescribing them, no routine practice can be adopted, and their administration demands the most careful personal supervision of the physician in attendance.—*Canada Medical Record.*

The Radical Cure of Artificial Anus.

SEVERAL papers have appeared during the past year, which throw some light upon the comparative value and safety of Dupuytren's operation and the more recent procedure of resecting a portion of the bowel and uniting the divided ends with sutures, for the relief of artificial anus. In the operation of the French surgeon, it will be remembered, the object is to destroy the éperon or spur-like process with the enterotome, so as to re-establish the natural route of the feces, and leave the closure of the abnormal opening to the efforts of nature, or promote its cicatrization by the hot iron or other measures, or, finally, fill the defect by a plastic operation.

Of 83 cases of this operation, collected by Hiemann, in the *Deutsche Medicinische Wochenschrift*, Nov. 7, 1883, 7, or 8.5 per cent., died, 50, or 60.2 per cent., were complete cures, and 26, or 31.3 per cent., were partially successful, that is to say, the subjects recovered with a small fistule, compelling them to wear a compress and a bandage to prevent the escape of the intestinal contents. The time required for the cure varied from two to six months. At least three of the deaths were due to causes unconnected with the procedure, so that it may be said to be comparatively free from danger.

In view of the uncertainty and tediousness of Dupuytren's operation, the elder Gross, thirty-seven years ago, suggested to a patient excision of a portion of the bowel with suturing of the cut ends, but the proposal was declined. Hence it remained for Dr. Kinloch, of Charleston, S. C., in 1863, to carry the suggestion into effect, the report of the case having been published in *The American Journal of the Medical Sciences*, vol. liv., 1867. Although the operation failed, to Dr. Kinloch belongs the credit of having been the first to practice enterectomy and enterorrhaphy for the lesion under consideration.

Up to the present date abdominal incision, with intestinal resection and suturing, has been practiced in at least 37 instances, of which 29 have been analyzed in a valuable paper contributed to the *Révue de Chirurgie*, No. 7, 1883, by MM. Bouilly and Assaky. The operators were Bilroth in 7 cases, Schede in 3 cases, Julliard, Meusel, Rydygier, Schinzinger and Weinlechner, each in 2 cases, and Albert, Bardenheuer, Baum, Bouilly, Dumreicher, Dittel, Esmarch, Gussenbauer, Hofmokl, Hueter, Kinloch, Madelung, Novaro, Schonborn, Tauber, Thiersch and Weiss, respectively, in 1 case. Of the 37, 11, or 30 per cent., died, and 26, or 70 per cent., recovered.

The cause of death was peritonitis in 7, embolism of the pulmonary artery in 1, collapse in 1, pneumonia in 1, and ileus in 1. Of the recoveries 25 were complete cures, and 1 failed. All of the operations, with the exception of that of Kinloch, which recovered, were done under antiseptic precautions.

It will thus be seen that, when compared with the more simple operation, enterectomy is a serious procedure. Even if we deduct five deaths from peritonitis due to the escape of the contents of the intestine into the peritoneal cavity from the faulty application of the sutures, which were, as a rule, composed of catgut, perfect operations afford a mortality of 19.35 per cent, as against 5 per cent. for Dupuytren's method. Hence, we think that the procedure should be reserved, first, for the more simple cases in which compression, cauterization, the enterotome, and autoplasty have failed; secondly, for cases of great destruction of the intestinal wall, with extensive prolapse of the mucuous membrane, and with or without invagination of the upper portion of the gut; and thirdly, for the cases in which the ends of the intestine are so disposed that even after the destruction of the éperon, there could be no re-establishment of the natural course of the feces, as would happen if the lower end of the gut were placed above the upper end, if the two segments crossed each other at a right angle, or if there were a notable difference in the calibre of the two ends of the intestine. —*Philadelphia Medical News.*

St. Joseph's Hospital for Consumptives, New York.

SERVICE OF C. M. CAULDWELL, M.D.

Treatment of the Commoner Symptoms of Phthisis.

Coughs.—Oxalate of cerium has been used in seventy cases as a cough palliative, and has rendered excellent service in relieving this most troublesome symptom of phthisis. It has one marked advantage over the drugs usually prescribed for the alleviation of cough, namely, that of never disturbing either appetite or digestion. Its good effects were especially noticeable in those cases where severe paroxysms of coughing, with or without vomiting, followed the ingestion of food. Where the cough was troublesome during the day, the drug was given in ten-grain doses every few hours, but if coughing occurred principally at night, then thirty grains were given at bedtime and repeated before morning if necessary. When oxalate of cerium alone failed, the desired effect was often obtained by combining it with chloral hydrate or spirits of chloroform.

Night-sweats.—The following combination of chinoidine and atropine has been used in thirty cases of night-sweats occurring in patients suffering with phthisis in both early and late stages. The annoying and debilitating perspirations were not only controlled during the administration of the drugs, but in a large number of cases did not return after the treatment had been discontinued. The formulæ used were:

℞. Pulv. chinoidin. purif. - - - gr. xij.
Atropiæ sulphate - - - - gr. $\frac{1}{30}$.
M. Ft. capsulæ No. 2.
Sig.—One the first night and one three nights after.

℞. Pulv. chinoidin purif. - - - ʒ j.
Ft. pil. No. 12.
Sig.—One pill every night that the capsules are not taken.

The advantages of this combination over either atropine or quinine, as usually prescribed, are thought to be: (1) the greater permanency of effect; (2) the freedom from unpleasant symptoms often produced by the other drugs; (3) the comparatively small amount of medicine necessary; (4) the very moderate expense as compared with quinine. When this plan of treatment was contraindicated, or gave only temporary relief, picrotoxin produced excellent results. It was administered in gelatine-coated pellets of one eightieth to one-fortieth of a grain at bedtime, and either entirely suspended or greatly diminished the sweating in every case in which it was prescribed.

Diarrhœa.—Of the various remedies tried in the treatment of over seventy cases of diarrhœa in consumptives, bismuth was found the most generally useful. In slight attacks, due to indigestion, etc., it was preceded by a mild laxative and given in twenty to thirty-grain doses every two hours. In the severe forms of diarrhœa accompanied by symptoms of intestinal irritation or inflammation, a combination of twenty grains of bismuth with one-half grain of opium was given every two or three hours, with satisfactory results in the great majority of cases. A number of apparently hopeless cases entirely recovered from profuse watery diarrhœa when treated with *coto bark.* The formula used was:

℞. Extr. coto. fl.,
Tr. cardamom. co. - - - āā ℥ j.
Mucil. acaciæ - - - - - ℥ iij.
Glycerine - - - - - ℥ ij.
Aq - - - - - q. s. ad ℥ vj.
M. S.—Half ounce every hour.

Hæmoptysis.—The following method of using hamamelis, or morphine and hamamelis, has given much more satisfactory results in hæmoptysis of phthisis than any other combination of drugs used in this institution. Unlike ergot, lead, veratrum, etc., hamamelis does not disturb the appetite or digestion, but apparently diminishes cough and quiets the nervous system. Severe hemorrhages were treated with a single small hypodermic of morphine, followed by one-half drachm of distilled extract of hamamelis, repeated every half hour. Ordinary attacks of hæmoptysis were controlled by hamamelis alone, given in the same dose, but at longer intervals. Patients suffering from rapidly recurring hemorrhages were promptly rid of their tendency to hæmoptysis when kept upon the distilled extract for several weeks.

Moral (Affective) Insanity—Psycho-Sensory Insanity.

BY C. H. HUGHES M. D., ST. LOUIS.

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Reprint from *The Alienist and Neurologist*, April, 1884.

The real question in every discussion of moral insanity, is not whether there exists in the mind of its victim any illogical reasoning based upon a false premise of wrong and morbid feeling, but whether the feelings or impulses are so primarily and chiefly and paramountly affected as to overshadow all other evidences of mental derangement that may exist in the individual, and give the distinguishing character to his disease, as depression of feeling gives to melancholia (which Prichard regarded as a form of moral insanity) and exaltation does to general paralysis, determining the nature of delusions, if they subsequently develop; fearful, dreadful, in the one case; hopeful and grandiose in the other. Some cases of moral insanity are more typically free from *appreciable* reasoning aberration than others; some appear to be entirely so, just as some cases of the general paralysis of the insane are all grandiose delusion, while others are complicated with delusions of dread and persecution, and other states of lypemania.

Prichard's cases in illustration of what he meant by moral insanity, were not all equally free from the semblance of delusional derangement, and some alienists who have controverted the doctrine of moral insanity, have done so by seeking to show that Prichard did not understand himself and the meaning of his own definition. Blandford has analyzed this author's cases with this object, and so did Mayo, before Blandford's criticism appeared. But illustrative cases speak plainer than definitions of insanity, a subject universally acknowledged to be extremely difficult, and by many psychiatrists asserted to be impossible to define. Georget, Pinel, and Esquirol, before Prichard, described *manie sans delire*, *manie sans lesion de l'entendement* and *folie raisonnante*, and Prichard, in illustration of what he termed moral insanity, introduced into his book their descriptions.

The vulgar idea of moral insanity (and this view has been adopted by some alienists, but without warrant from the founders of the doctrine) is that it is always and *only* a form of immoral manifestation without disorder of the reason, which certain weak-minded and excessively sympathetic psychologists have sought to extenuate by supposing the co-existence of exculpatory mental disease, whereas Prichard said "the varieties of moral insanity are perhaps as numerous as the modifications of feeling or passion in the human mind," characterized by "excitement or the opposite state of melancholic dejection." "Propensities," he said, "are so nearly allied to passions and emotions that they are generally referred to the same division of the faculties or of mental phenomena; both are included by metaphysicians in the ethical or moral department of the mind as contradistinguished from the intellectual."

Prichard, referring to the cases of *manie sans delire*, or *folie raisonnante*, described by Pinel, confesses that they "failed for a long time to produce conviction" on his mind, but he became persuaded that Pinel was correct in his opinion, and states that "Esquirol had assured him his impression on this subject was similar." M. Esquirol, though his great work, "Des Maladies Mentales," bears indubitable evidence of his conviction of the reality of this form of mental derangement, at one time entertained strong doubts of the existence of insanity without appreciable intellectual error or delusion, but when convinced, as every one must be who will open himself freely to conviction, without any mental reservation as to the necessity of co-existent intellectual aberration, he candidly confessed his error without endeavoring, as medical writers of his day did, as Prichard complains, to reconcile the phenomena of affective aberration with preconceived opinion respecting the nature of insanity, "by assuming, on conjecture, the existence of some undetected delusion," an assumption unwarranted in the ordinary nature of insanity, because the disease, even when it finally displays itself in well marked delusion, is characterized in its earlier stages by morbid changes of feeling and conduct, not based upon delusive reasoning, but laying the foundation for the subsequently developed delusions. But even if unappreciable, but theoretically probable, intellectual aberration exists in moral insanity, the doctrine must stand.

"There are madmen in whom it is difficult to discover any trace of hallucination, but there are none in whom the passions and moral affections are not disordered, perverted or destroyed." Esquirol records that in all his forty years of study and observation at Salpêtrière and Charenton, and in his private practice, he had seen no exceptions to this fact. The candor of Esquirol and Prichard is worthy of commendation and emulation. But it does not require, at this late day, the genius or experience of an Esquirol, to discover among the insane those whose insanity is chiefly one of character.

A politic, but unscientific objection to the term moral insanity, relates to the disfavor with which the plea of moral insanity as a defense for crime is received by the courts and populace.

It is considered dangerous to the moral welfare of society, and tending to defeat the ends of justice, to recognize a form of mental disease which, in some of its features, sometimes counterfeits depravity and crime. To recognize insanity under such circumstances would be as Mayo might say, "at great expense of public good,"a consideration which biased his judgment on the subject and the book he wrote, and which has likewise obscured the judgment of most of his cotemporaries and followers down to the present day, who have thought fit to deny the existence of insanity of conduct without appreciable intellectual derangement.

This objection, while worthy of consideration as to the propriety of so designating this state of mental alienation under certain circumstances, without a full explanation of its real nature, lest we should jeopardize the imperiled welfare of a really insane person on trial before a prejudiced and frenzied populace, clamorous for vengeance, whether the victim be mentally diseased or not, is not entitled to much weight in a scientific discussion when truth alone is sought. The same objection might be urged to any form of mental disease under the same circumstances, since the plea, under the name of "insanity dodge," of insanity in any form, has become so obnoxious, through the lax rulings of courts admitting as competent, incompetent expert testimony, that the rights of the really insane to its protection are in jeopardy whenever this defense is interposed, in many communities.

It might be profitable for us to acquaint ourselves a little more at length with Prichard's own words, to convey his understanding of the meaning of this term. In his preliminary remarks (p. 15) after referring to "affections of the understanding of rational powers," he says: "but there is likewise a form of mental derangement in which the intellectual faculties *appear* to have sustained *little or no* injury, while the disorder is manifested *principally or alone* in the state of feelings, temper or habits. In cases of this description the moral and active principles of the mind are strangely perverted and depraved; the power of self-government is lost or greatly impaired; and the individual is found to be incapable, not of talking or reasoning upon any subject proposed to him, for this he will often do with great shrewdness and volubility, but of conducting himself with decency and propriety in the business of life. His wishes, and his inclinations, his attachments, his likings and dislikings, have all undergone a morbid *change*, and this change appears to be *the originating* cause, or to lie at the foundation of any disturbance which the understanding itself may seem to have sustained, and *even in some instances to form throughout the sole manifestation of the disease.*"

On page 16, he defines moral insanity to be "a morbid perversion of the natural feelings, affections, inclinations, temper, habits, moral dispositions and natural impulses, *without any remarkable disorder or defect* of the intellect or knowing and reasoning faculties, and *particularly* without any insane illusion or hallucination."

Referring to the first and third divisions of insanity adopted by Heinroth, he says his definition comprehends all the modifications of feeling or affection which belong to the first division as well as the disorders of will or propensity, which constitute the third department of that writer.

Heinroth's first kind of mental disorder consists of, says Prichard, disorders of the moral dispositions.

The first division consists in disorders of passion, feeling or affection (of the *Gemueth*), or moral disposition. This has two forms.

Heinroth's first form was: 1. Exaltation, or excessive intensity; 2. Undue vehemence of feeling; 3. Morbid violence of passions and emotions.

Second form: Depression, simple melancholy, dejection without delusion of the understanding.

Heinroth's third division comprises disorders of the voluntary powers or of the propensities, and of will.

Heinroth's first form was: Violence of will and of propensities; *Tollheit*, or madness without lesion of the understanding.

His second form embraced weakness, or incapacity of willing, and moral imbecility. (See pp. 18 and 19, Prichard's Treatise, for the verification of the quoted language.)

On page 20, beginning chapter II. of his work, Prichard again defines moral insanity with the qualification that "*it sometimes co-exists with an apparently* unimpaired state of the intellectual faculties."

"Persons laboring under this disorder are capable of reasoning," he continues (p. 22), "or supporting an argument upon any subject within their sphere of knowledge, that may be presented to them; and they often display great ingenuity in giving reasons for the eccentricities of their conduct, and in accounting for and justifying the state of moral feeling under which they appear to exist. *In one sense indeed their intellectual faculties may be termed unsound;*

they think and act under the influence of strongly excited feelings, *and persons accounted sane, are under such circumstances, proverbially liable to error, both in judgment and conduct.*"

The varieties of moral insanity, he says, (p. 24), "are perhaps as numerous as the modifications of feeling or passion in the human mind. The most frequent forms, however, are characterized either by the kind of excitement already described" [referring to his preceding descriptions], "or the opposite state of melancholic dejection." "The faculty of reason is not manifestly impaired, but a constant feeling of gloom and sadness clouds all the prospects of life." (Ibid. p. 24.)

"There are many individuals living at large, and not entirely separated from society, who are affected in a certain degree with this modification of insanity. They are reputed persons of a singular, wayward and eccentric character. An attentive observer will often recognize something remarkable in their manners and habits, which may lead him to entertain doubts as to their entire sanity; and circumstances are sometimes discovered, on inquiry, which add strength to his suspicion. In many instances it has been found that an hereditary tendency to madness has existed in the family, or that several relatives of the person affected have labored under other diseases of the brain. The individual himself has been discovered to have suffered, in a former period of life, an attack of madness of a decided character. His temper and dispositions are found to have undergone a change; to be not what they were previously to a certain time; he has become an altered man, and the difference has, perhaps, been noted from the period when he sustained some reverse of fortune, which deeply affected him, or the loss of some beloved relative. In other instances, an alteration in the character of the individual has ensued immediately on some severe shock which his bodily constitution has undergone. This has been either a disorder affecting the head, a slight attack of paralysis, a fit of epilepsy, or some febrile or inflammatory disorder, which has produced a perceptible change in the habitual state of the constitution. In some cases the alteration in temper and habits has been gradual and imperceptible, and it seems only to have consisted in an exaltation and increase of peculiarities which were always more or less natural and habitual.

"In a state like that above described, many persons have continued for years to be the sources of apprehension and solicitude to their friends and relatives. The latter, in many instances, can not bring themselves to admit the real nature of the case. The individual follows the bent of his inclinations; he is continually engaging in new pursuits, and soon relinquishing them without any other inducement than mere caprice and fickleness. At length the total perversion of his affections, the dislike, and perhaps even enmity, manifested towards his dearest friends, excite greater alarm. When it happens that the head of a family labors under this ambiguous modification of insanity, it is sometimes thought necessary, from prudential motives, and to prevent absolute ruin from thoughtless and absurd extravagance, or from the results of wild projects and speculations, in the pursuit of which the individual has always a plausible reason to offer for his conduct, to make some attempt with a view to take the management of his affairs out of his hands. The laws have made inadequate provision for such contingencies, and the endeavor is often unsuccessful. If the matter is brought before a jury, and the individual gives pertinent replies to the questions that are put to him, and displays no particular mental illusion,—a feature which is commonly looked upon as essential to madness,—it is most probable that the suit will be rejected."

Moral Insanity is insanity of conduct, feeling or impulse, or all combined, without such appreciable intellectual derangement that it would be recognized as insanity without the display of morbid feeling, impulse or conduct. It may, as Esquirol thought, include *delire partielle*, and undoubtedly does in many cases, and still be entitled to be designated moral insanity, because of the predominance and overshadowing and overmastering character of the aberration of the moral faculties over the faculties of the understanding.

It expresses itself rather in action than in speech, though it may utter itself in both, but unlike pure intellectual mania, which is often only recognized in the patient's language, it never expresses itself alone in written or spoken words. To be continued.

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Pinus Canadensis in Leucorrhea.— Dr. Upson, of Marshalltown, Iowa, writes that he has had unbounded success with the pinus canadensis (dark) in leucorrhea and gonorrhea.—*Columbus Med. Jour.*

Microscopy.

Quekett Microscopical Club.

Continued from last number.

Everyone would understand the importance of keeping off stray light from the stage etc. An ordinary paraffin lamp having a wick of half an inch would answer most purposes admirably, and with low powers ground-glass should be employed either with or without condenser. The image of the flame could be projected in the ground-glass, nearer or further from the object. The oxy-hydrogen light might be serviceable for resolving such tests as Nobert's lines. The incandescent lamp he regarded as entirely a failure for microscopical purposes. This was at once obvious upon the consideration that the finest images seen are got by viewing objects, as it were, *in the image of the source of light.* All critical images of transparent objects viewed by direct transmitted light required first that the source of light should be pictured by the condenser exactly in the plane of the object, the object then served to interrupt the image of the source of light. The observer had simply to arrange the lamp, condenser and diaphragms so as to produce the most perfect image of the source of light of the required size in the plane of the object, the objective would then have fair play. The size of the image of the lamp flame could be controlled by distancing the lamp, as illustrated by a diagram. There really was no other secret in the matter. With the incandescent lamp the image produced by the condenser represented the mere carbon thread, on which no object could be seen projected; in order to obtain some extent of brightly luminous field, the condenser must be put out of focus, then the intensity of the light was so reduced that the observer would simply discard the incandescence, finding it far less serviceable than a shilling paraffin lamp. He had himself suggested the construction of a lamp for the use with the microscope in which the flame could be brought very low down near the table. The glass of the chimney consisted of an ordinary 3 by 1 slip, and so could be cleaned or replaced readily. The chimney was of metal and he preferred it black inside; he wanted the image of the flame on a black background. The bull's-eye of the ordinary con struction gave but a small disc of clear light; he had therefore engaged Messrs. Swift to construct a condenser for the lamp on the Herschelian form, consisting of a meniscus and a bi-convex, which gave a much larger and clearer disc of light, as shown by diagram. He did not advise the use of the bull's-eye for direct transmitted light; it was preferable to point the microscope direct to the flame, or to use the plane mirror. The bull's-eye was useful for oblique light, especially when a double-slot diaphragm was required. It was very important for dark-ground illumination, and with the Lieberkühn. Oblique light with single-slot diaphragm he obtained better without bull's-eye. In treating of the use of condensers, he could not too strongly dwell upon the importance of proportioning their aperture and power to those of the objectives. In his judgment no condenser had yet been devised so effective as Powell and Lealand's for all powers beyond ¼. It had an aperture of about 170°, and a focus long enough to go through any ordinary slip, and was provided with a beautifully centred disc of graduated diaphragms, and with slots and central stops of admirable construction. Whilst giving it the palm over every other form of achromatic condenser, he was alive to the fact of its being costly. It was so well made that it *must* be costly. Its convenience was so great that he could hardly suppose that anyone who had once gained experience of its utility would consent to use high powers without it. He regarded it as the most useful apparatus in his collection. Messrs. Swift have produced a condenser of about 145° aperture, which, by removing the front lens, could be reduced to a much lower aperture suitable for low powers; it had a pivoted disc to carry the diaphragms. The microscopist should possess both these condensers to enable him to do critical work with high and low powers. With Messrs. Swift's condenser it was advisable to have an adapter to fit beneath and carry three concentric rotating rings, which were specially convenient for experimenting with central stops, or for zonal illumination. The superposition of two or three discs differently cut gave a great range of effects of light. They might also be used for selenites and mica, and would be found of great service in this combination. He entirely condemned the use of paraboloids for dark-ground illumination. Properly adjusted central stops with the condenser would give by far the best dark-ground illumination. For opaque objects he thought nothing had been devised so good as Lieberkühn's, and objects ought as far as practicable to be mounted for use with Lieberkühn's, and not covered up with paper. If the side illuminator were used it should be attached to a fixed part of the stand, not to the body-tube or stage. The vertical illuminator was a difficult apparatus to manipulate, and required great patience. It afforded a remarkable proof of the existence of aperture beyond the dry-lens limit. He exhibited a diagram of the back lens of a $\frac{1}{12}$ oil immersion objective of 1·43 N. A. when used with the verticular illuminator; the outer zone represented the aperature beyond 1·0 N. A. The first requirement with the vertical illuminator was to find an object in close adherence to the cover glass, for it was only such an object that lent itself to that method of illumination. He was afraid he could not say anything useful on that matter unless supported by the microscope; but he had repeatedly exhibited the apparatus at the club, and therefore he would not then dwell further upon it. As a *camera lucida*, he had been satisfied with Beale's neutral tint reflector. On the use of the eyepiece screw-micrometer, he said that for delicate measurements it should be mounted on a separate stand not to touch the microscope, in that way he had repeatedly counted 90—100 lines in the whole space of an inch. As to polarisation, he had so little time left that he must be content with the simple recommendation of polarisers with large field. He might, however, remark that many minute objects gave curious effects of polarisation—for instance, the Podura scale—and many of these yielded most beautiful pictures when viewed with polarised light. He then referred to the diffraction appearances presented at the back of objectives in viewing *A. pellucida* by axial light and again by oblique light, using, in both cases, dry and immersion condensers. He also showed by diagrams the progressive interpretations that had been made of the structure of *P. angulatum* and *P. formosum* during the past 50 years, and concluded by some general observations on the difficulties of interpreting the images presented by microscopic objects requiring high magnification.

At the close of the demonstration Mr. Nelson exhibited the various appliances he had commented upon. Amongst them were Powell and Lealand's No. 1 stand, with achromatic condenser, polariser, analyser, Huyghenian eyepieces Kellner ditto, Swift and Son's large Jackson-Lister microscope, with new fine-adjustment, and a small model of the same fitted with condenser and diaphragm carrier as suggested by Mr. Nelson, objectives by Powell and Lealand, Spencer and Ross vertical illuminator, Beale's neutral tint reflector, Abbe's condenser, etc.

Gleanings.

A CASE OF CONCEPTION WITHOUT INTROMISSION.—By Edward Cass, M. D., of Dresden, Ohio, in *Med. and Surg. Reporter.*

In the *Reporter* for March 1, 1884, is an extract from the *Gazz. degli Ospital*, October 24, 1883, by Resconi, discussing the subject of conception. The author combats the old opinion that "spermatozoa can make their way into the uterine cavity, if they have already been abandoned only in the vagina. Pallen, Fraer, Rouget and Kolbert have all shown the falsity of such doctrine. Experiments on the dead body are then related, which seemed to put beyond a doubt, that semen can enter the uterus only at the time of coition." I have a case to relate that will put beyond a doubt, in practical minds, that conception *has* taken place where it was impossible for the semen to be thrown into the cavity of the uterus. More than a year ago I was called to see a lady in her accouchment, and on making digital examination, I found about two inches and a half within the vaginal canal a firm, unyielding band or curtain, entirely grown across the canal. On the pubic side of this curtain was a small orifice through which I could not introduce the end of my little finger. Through this small foramen must have drained the catamenia. It was her third confinement. Her testimony was this: Some time after the second child was born, she discovered this obstruction in the vaginal canal, and spoke of it to her husband before he had intercourse with her. She was delighted with the discovery, for she thought the obstruction would be an unfailing measure to prevent child-bearing. Some inflammatory action had taken place after confinement, and closed the canal as I found it. By force the band was ruptured, and the labor completed. It required considerable force to rupture the septum. Here, then, is an instance where it was impossible during sexual congress to inject the seminal fluid into the uterine cavity.

Here is a fact—a truth. Here is an accidentally discovered theorem that demonstrates the possibility that the uterus may be impregnated when the "spermatozoa have been abandoned only in the vagina." The American medical professors, in their docility to European speculative teachings, are peculiarly credulous. Since I have made this narrated discovery, I have doubt that the seminal fluid is almost never thrown into the uterine cavity. This unyielding curtain had no power to dilate the small orifice that speculators claim for the mouth of the uterus. The corollary is plain, without a doubt, that spermatozoa were in this case abandoned quite a distance from the mouth of the uterus. It may be that Pallen, Fraer and Kolbert *et al.*, would take this case to be an exceptional one to the rule, that the spermatozoa in the Americans are possessed of greater energy to surmount difficulties than those of other countries —and take into consideration that this occurred in *Ohio too*, where we find the most determined, enterprising and aggressive of the race. If this could be copied into every European journal, it might be a cause for them to reflect, and revolutionize a little speculative theory.

COMBINATIONS OF SALICYLIC ACID.—The *Med. and Surg. Reporter* publishes the following: ℞. Sodii bicarbonatis, ʒ ij; acidi salicylici, ʒiij; glycerinæ, aquæ puræ, āā ℥ ij. M. et. Sig.—One teaspoonful every four hours.

℞. Acid salicylic, grs. 100; borax, grs. 80; syr. limonis, oz. 8; aq. menth. pip., oz. 8. M.

Book Notices.

SHAKESPEARE AS A PHYSICIAN: Comprising every word which in any way relates to Medicine, Surgery, or Obstetrics, found in the Complete Works of that writer, with Criticisms and Comparisons of the same with the Medical Thoughts of to-day. By J. Portman Chesney, M.D., Secretary Medical Society of the State of Missouri, Corresponding Member of the Gynecological Society of Boston, etc. 8vo. Pp. 226. St. Louis: J. H. Chambers & Co.

It will be remembered that several months ago we noticed a pamphlet by a physician of Easton, Pa., devoted to the allusions which Shakespeare made in his works to medicine.

The work before us is of similar character, but is much more elaborate and extensive in its scope.

It has been the object of the author to present truly and faithfully every line and precept in Shakespeare's complete works which in the remotest sense bears upon the science and practice of medicine. First, attention is given to obstetrics, and under this caption is considered all of the dramatist's allusions to parturition. Following these allusions are comments by the author, comparing frequently the views of Shakespeare with those held at the present time. It is a fact which has often excited considerable wonder that Shakespeare's expressions in regard to medicine are nearly always correct. Although not a physician, nor did he ever give, so far as is known, any attention to medicine, yet he seems to have had most correct notions of diseases, and seldom failed to describe their phenomena correctly. He is said to be the only writer who has succeeded in correctly representing the ravings of an insane person.

After the reader has been treated with Shakespeare on obstetrics, we have presented to us his knowledge of psychology; and as regards this the author quotes Dr. Bucknill, who says that "Shakespeare not only possesses more psychological insight than all other poets, but more than all other writers." In fact, Dr. Bucknill says, as is stated, that the extent and exactness of the psychological knowledge displayed in Shakespeare's writings has surprised and astonished him, and he can only account for it on one supposition, namely, that "abnormal conditions of the mind had attracted Shakespeare's diligent observation, and had been a favorite study. This would seem evident from the mere number of characters to which he has attributed insanity, and the extent alone to which he has written upon the subject." But we agree with the author that it is quite absurd to suppose that Shakespeare ever gave any special study to aberrant mental phenomena. The data from his own pen precludes it. "The theory, therefore, still remains that Shakespeare *learned* few things; he *knew* them *intuitively*."

Although we can hardly spare the space, yet we are tempted to copy from the "Comedy of Errors," act v., scene i., to illustrate how readily Shakespeare could trace the cause of insanity in a given case:

Abbess. How long has this possession (madness) held the man?

Adriana. This week he hath been heavy, sour, sad, and much different from the man he was; but, till this afternoon, his passion ne'er brake into extremity of rage.

Abb. Hath he not lost much wealth by wreck at sea? buried some dear friend? Hath not else his eye strayed his affection in unlawful love? a sin prevailing much in youthful men, who give their eyes the liberty of gazing. Which of these sorrows is he subject to?

Adr. To none of these, except it be the last, namely, some love that drew him oft from home.

Abb. You should for that have reprehended him.

Adr. Why, so I did.

Abb. Ay, but not rough enough.

Adr. As roughly as my modesty would let me.

Abb. Haply, in private.

Adr. And in assemblies, too.

Abb. But not enough.

Adr. It was the theme of our conference; in bed he slept not, for my urging it; at board he fed not, for my urging it; alone it was the subject of my theme; in company I often glanced it; still did I tell him it was vile and bad.

Abb. And thereof come it that the man was mad. The venom clamors of a jealous woman poison more deadly than a mad dog's tooth. It seems his sleep was hindered by thy railing, and thereof comes it that his head is light. Thou say'st his meat was sauc'd with thy upbraidings. Unquiet meals make ill digestions; thereof the raging fire of fever bred; and what's a fever but a fit of madness? Thou say'st his sports were hindered by thy brawls. Sweet recreation barred, what doth ensue but moody and dull melancholy, kinsman to grim and comfortless despair, and at her heels a huge infectious troop of pale distemperatures and foes to life?

In food, in sport, and life-preserving rest
To be disturbed would mad man or beast;
The consequence is then, thy jealous fits
Have scared thy husband from the use of wits.

From this quotation above from Shakespeare, it will easily be perceived how intelligent he was in regard to disturbing causes of the action of some of the organs of the body. It will be noticed, for instance, that he understood that mental emotion interfered with digestion, and that the stomach has a reflex action upon the brain, so that indigestion results in depressing the mind. It will be observed, too, the several causes of insanity which he suggests in the case of Adriana's husband—loss of property, grief following upon the death of friends, lechery—"a sin prevailing much in youthful men, who give their eyes the liberty of gazing"—and the harassing clamors of a jealous woman, hindering sleep, disturbing digestion, etc. But we are reviewing Shakespeare now without reference to Dr. Chesney's work. We will state, in returning to our subject, that the chapter which sets forth Shakespeare's knowledge of psychology by quoting his allusions to insanity, the mental phenomena he describes in individuals is highly entertaining, and is the most interesting part of the work. The comments of the author are quite to the point, and are entertaining and instructive.

After psychology follows chapter third, devoted to the dramatist's references to neurology; chapter fourth, pharmacologia; chapter fifth, etiology; chapter sixth, dermatology; chapter seventh, organology; chapter eighth, chirurgery; chapter ninth has miscellaneous subjects considered.

The readers of the MEDICAL NEWS will find the work to be very entertaining and quite instructive. The author's remarks and criticisms contain very much information, and set forth very correctly the views of the profession on many subjects in medicine.

MEDICAL DIAGNOSIS WITH SPECIAL REFERENCE TO PRACTICAL MEDICINE. A Guide to the Knowledge and Discrimination of Diseases. By J. M. Da Costa, M. D., LL.D., Professor of Practice of Medicine and Clinical Medicine at the Jefferson Medical College, Philadelphia; Physician to the Pennsylvania Hospital, etc. Illustrated with Engravings on Wood. Sixth Edition, Revised. 8vo. Pp. 967. Philadelphia: J. B. Lippincott & Co. Cincinnati: R. Clarke & Co. Price, $6.00.

It was the author's aim in writing this work to furnish advanced students and young graduates of medicine with such knowledge as might be of service to them in diagnosing diseases. As is stated in the preface to the first edition, the author has sought to offer in this work, to those members of the profession who are about to enter on its practical duties, a book on diagnosis of an essentially practical character—one neither so meager in detail as to be next to useless when they encounter the manifold and varying features of disease, nor so overladen with unnecessary detail as to be unwieldy and lacking in precise and readily applicable knowledge. That he has succeeded in his design and produced a book which the profession esteems of the highest value, is evident from the fact that it has reached a sixth edition.

The work is divided into twelve chapters—many of the chapters being subdivided into sections. The first chapter is devoted to the examination of patients and symptoms of general importance. In chapter second the diseases of the brain are considered and the symptoms peculiar to them. Commencing with the third chapter, several chapters are devoted to the treatment of the signs denoting diseases of the heart, lungs and air passages. In these chapters, what is termed *Physical Diagnosis*, is very fully set forth and explained. In fact, a very excellent treatise upon the subject is presented, than which no better exists in the language. The principles and practice involved are brought abreast of those of the present time, which are recognized by leading diagnosticians as coinciding with their investigations and experiences, and consequently meeting with their approval.

In the sixth edition before us, new matter has been introduced into many of the chapters, and all have been revised. A number of wood-cuts have also been added. The work will undoubtedly be more acceptable than ever, and will continue to maintain its popularity with students and young practitioners of medicine. But older physicians, too, if they would address themselves to the study of it, would be greatly benefited thereby and their usefulness increased. Not a few of the profession, who have been in practice many years, and have not kept themselves informed of the vast progress that has been made, since they graduated, in the knowledge of disease by constant reading of the medical journals, will be astonished, by a careful reading of Prof. Da Costa's "Medical Diagnosis," to find how far behind they have been left in the progress that has been made.

LEGAL MEDICINE. By CHARLES MEYMOTT TIDY, M.B., F.C.S., Master of Surgery, Professor of Chemistry and Forensic Medicine and Public Health in the London Hospital. Three volumes, containing over 300 pages each. New York: Wm. Wood & Co.

These volumes belong to Wood's Library of Standard Medical Authors. We noticed one of the volumes in a recent number of the MEDICAL NEWS. We have now before us the other two.

It has been the aim of the author, and he has labored greatly to that end, that correctness should mark his work. Therefore, in all cases having reference to the various subjects under consideration, he has spared no pains to collect all the parts, whether these cases were recorded in English or foreign literature; and in cases of experiment, when it has seemed necessary, he has gone over them *de novo* in order to verify any conclusion or harmonize contradictory statements of results.

The first volume is devoted to the consideration of Evidences, the Signs of Death, Identity, the Causes of Death, the Post-Mortem, Sex, Monstrosities, Hermaphrodism. The second volume treats of Expectation of Life, Presumption of Death, Survivorship, Heat and Cold, Burns and Scalds, Lightning, Explosives and Combustibles, Starvation: its treatment.

There is no practicing physician who is not liable at any time to be called as a witness in court or before a coroner, *nolens volens*, to give evidence in cases in which his knowledge of his profession will be thoroughly tested. What physician is there who woud not wish to acquit himself creditably? While a thorough knowledge of text-books is essential to an understanding of the principles of medicine, and may contain very much that is necessary in the way of information, conjoined with experience, for the treatment of the ordinary diseases met with in practice, yet there is much which a physician ought to know, and it is supposed that he does know, that pertains to legal medicine, which is not contained in text-books, and can only be found in a work like the one before us.

Dr. Tidy's work is fully up to the times, containing all in regard to legal medicine that has become developed by the progress of medical science. It is really a highly interesting work to read independent of its usefulness.

We find stated in this work what we learned some months ago from the newspapers, the action of the New York legislature in regard to medical witnesses, viz.: "No person duly authorized to practice medicine or surgery *shall be allowed* or compelled to disclose any information which he may have acquired in attending any patient in his professional character, and which information was necessary to enable him to prescribe for such patient as a physician, or to do any act for him as a surgeon."

The highest legal authorities in England, however, have decided that medical men enjoy no privileges with regard to secrets of a professional nature. "In other words," as Dr. Tidy says, "no practitioner can claim exemption from answering a question, because the answer may or would involve a violation of secrecy, or even implicate the character of his patient." This is the law, as it has been generally given from the bench. There has recently, however, been some exceptions. Not long ago we saw in a newspaper that a court in Indiana had refused to compel a physician, who was a witness in a case, to testify in regard to certain matters in which he had obtained his information in the exercise of his profession. We consider with Dr. Tidy that it seems a monstrous thing to require that secrets affecting the honor of families, and perhaps confided to the medical adviser in a moment of weakness, should be dragged into the garish light of a law court, there to be discussed and made jokes of by rude tongues and unsympathetic hearts. We feel that we would prefer to sacrifice our personal liberty under such circumstances than our honor.

We heartily commend the work to our subscribers as one of the very best in legal medicine.

ELEMENTARY PRINCIPLES OF ELECTRO-THERAPEUTICS for the use of Physicians and Students, with 135 Illustrations. Prepared by C. M. Haynes, M.D. 8vo., pp. 426. Chicago: McIntosh Galvanic and Faradic Battery Co. Price, $2.00.

The works upon Electro-Therapeutics have multiplied in number very greatly during the last six or eight years. A greatly increased attention has recently been given to electricity as a remedial means, and the result has been a multiplication of the number of observers of its action and a more extended and accurate knowledge of its effects. About twenty-five or thirty years ago, we recollect, that whatever confidence the profession had previously entertained in electricity or galvanism as a therapeutic agent it seemed to have lost it, for at that time very little mention was made of it in the medical journals or works upon practice, and scarcely a practitioner of our acquaintance ever made use of it. In fact its use seemed relegated to quacks.

Electricity to be successfully employed as a curative agent must be used scientifically. Its indiscriminate employment results in no benefit, if it does not produce harm. The physician who desires to make it of value in his practice must thoroughly study its nature, its effects upon the system in health and disease, the various influences of the different currents—primary, secondary, etc., for these different currents vary in their influences; he must understand what is meant by faradic electricity and the effects of an uninterrupted flow from a battery of many cells, and many other phenomena. The remedial use of electricity, taking the word in its general sense, is a study of itself requiring much time and labor to master, and until it is mastered a physician had better not employ it at all in his practice.

The therapeutic effects of electricity having now been placed upon something like a scientific basis, it has come to be recognized as a remedial agent of great value, and the physician whose ignorance does not enable him to use it in his practice does not afford his patients all the advantages of the progress of medicine at the present time.

The work of Dr. Haynes is well adapted to give physicians very correct information in regard to the therapeutic action of electricity. As stated in the advertisement of it, it contains in a clear and concise form, with no attempt at theorizing, the elementary principles of Magnetism, Franklinism, Galvanism and Faradism. A careful study of the work will render the every day practitioner quite competent to make use of electricity in the treatment of such diseases as experience has found it to be beneficial.

We have not space, of course, to give a table of contents of the work, but among many other subjects treated, the reader will find compared the different forms of electricity—according to their physiological effects—according to their therapeutic effects; the differential indications for the selection of current, an important matter; diagnosis and prognosis in various forms of paralysis; complete and definite directions, collected from the best American and European authors, for the treatment of all diseases to which electricity has been successfully applied, etc.

Post-Nasal Catarrh and Diseases of the Nose Causing Deafness. By Edward Woakes, M.D., Senior Aural Surgeon and Lecturer on Diseases of the Ear, London Hospital; Senior Surgeon, Hospital for Diseases of the Throat, London. Illustrated with Wood Engravings. 12mo., pp. 224. Philadelphia: P. Blakiston, Son & Co. Cincinnati: R. Clarke & Co. Price, $1.50.

This little work has reached, in England, a third edition, showing that it has met with very considerable favor in that country, and that fact, probably, is the reason why it has been reprinted in the United States.

We are sure our readers will find this a very acceptable work—one that the most of them will feel like procuring and studying. Diseases of the ear and nasal catarrh are affections that but very few physicians have had much success in treating, and we are confident that a work which promises to remove some of the difficulties in the way of relieving those ailments will be greatly sought for.

The author first discusses the correlating and reflex functions of the sympathetic system, and then considers the etiology of catarrh, acute and chronic, with the pre-catarrhal state. After this he takes up the subject of "taking cold," and follows with describing the sequences. Of the twelve chapters of the work, one of them—the fifth—is devoted to the hygienic management of the catarrhally predisposed.

It requires but the reading of a few pages of the work to convince one that the author possesses a philosophical mind, and is highly competent to treat his subject. If we could spare the space, we would copy from the forty-seventh page the explanation how a patient, who has been chilled in the feet and lower limbs, has his "cold" showing itself in the "head."

The author, in order to add to the usefulness of the work in a practical way, has introduced some account of the diseases of the nose and adjacent organs which lead up to deafness, with the methods of treatment which have approved themselves to him.

Editorial.

DECEASE OF EMINENT MEDICAL MEN.—We are called upon, in this issue of the *Medical News*, to record the death of two very eminent men of the medical profession—men who had reached the very highest pinnacle of fame in the healing art.

They form two most brilliant examples how illustrious an individual may become for great learning and usefulness in the profession of medicine who conscientiously devotes his talents, time and labor to its study and practice. Being men of great natural gifts, which they sedulously cultivated, they both reaped a rich reward in a fame as great and lasting as ever falls to meritorious men in other professions.

Professor Willard Parker, M. D., LL.D., died Friday afternoon, April 25th. The funeral, we understand, took place on the following Monday, the 28th, and was largely attended by the profession of New York City and members of the family. He was interred at New Canaan, Conn., where, of late years, he had been accustomed to spend his summers.

He was born in Hillsboro, N. H., September 2d, 1800, and was, therefore, in his 84th year—certainly a good old age. He was descended on both sides from English Puritan stock. The family, on the father's side, emigrated to Massachusetts in 1640, and settled at Chelmsford. Several members of different branches of the family took an active part in the Revolutionary war—a great-uncle having been wounded at Bunker's Hill and afterwards dying from his wounds in Boston. He graduated at Harvard in 1826. In his Freshman year an incident occurred which attracted his attention to surgery. His chum happened to have strangulated hernia, and was first attended by the surgeon of the town, but without relief. In the morning, Dr. John C. Warren, the professor of surgery in the medical department of the College, was sent for, and the facility with which he diagnosed the case and reduced the hernia so forcibly impressed young Parker that he resolved to devote his life to the study and practice of medicine and surgery. In February, 1830, he graduated in medicine, having previously served as house physician in the U. S. Marine Hospital at Chelsea, and as house surgeon in the Massachusetts General Hospital; having studied practical anatomy under the distinguished surgeon, Dr. S. D. Townsend, of Boston, and afterwards becoming the private student of Dr. John C. Warren, whose lectures he attended for two years. In the following year, after graduating, he delivered an anatomical course of lectures in the Medical School of Woodstock, Vt. In June, 1830, he was made professor of anatomy in Berkshire Medical College, Pittsfield, Mass. In 1832, in the same College, it devolved upon him to fill the chair of surgery as well as of anatomy, lecturing twice daily While lecturing at Pittsfield he continued his connection with the Vermont school. In 1836, he accepted the chair of surgery in the Cincinnati Medical College. There he was intimately associated with Dr. S. D. Gross, who has recently deceased. Afterwards he spent some time in the English and French hospitals. On his return he expected to make Cincinnati his home, but concluding that the climate disagreed with him, on the advice of medical friends, he removed to New York and accepted the chair of surgery in the College of Physicians and Surgeons in that city. In the spring of 1840, appreciating the want of practical demonstration in teaching surgery, and not being connected with a hospital, he visited, with the students, two of the city dispensaries. Soon afterwards interesting cases were selected and taken from the dispensaries to the College, then on Crosby Street, where the anatomical theater offered superior advantages for making diagnoses and performing operations before the whole class. This was the commencement of what are termed college clinics. In 1845, Bellevue Hospital, then the city almshouse, reorganized, and Dr. Parker and Dr. James Wood were made visiting surgeons. In addition to his position as one of the surgeons of Bellevue, which he held for many years, in 1856, he was appointed visiting surgeon to the New York Hospital. On the death of Dr. V. Mott, in 1865, to fill his place, he was chosen as president of the N. Y. State Inebriate Asylum at Binghampton, a position which he accepted upon concluding that it offered a field for work in which he had taken a deep interest. The success which has attended the institution, in overcoming much opposition, attested the wisdom of the appointment. The position held by Dr. Parker, and many others in this country and Europe, is that alcohol is essentially a poison, that it can not be considered a food, and only should be used in exceptional cases and under the advice of a physician, and in the preparation of medicine. He received the degree of LL.D. from the College at Princeton, N. Y., in 1870. In 1870, on resigning active duties, he was made Emeritus Professor of Surgery in the College of Physicians and Surgeons. Besides this latter position, previous to his death, he was consulting surgeon to Bellevue Hospital, the N. Y. Hospital, St. Luke's Hospital, Roosevelt Hospital and Mt. Sinai Hospital. He was an honorary member of many of the State Medical Societies and other organizations. He was the first to point out a condition which is known as "Concussion of the Nerves," as distinguished from concussion of the nerve centers, and which had been previously mistaken for one of inflammation. The operation of cystotomy for the relief of chronic cystitis, and also that for the cure of abscess of the appendix vermiformis are among his contributions to the art of surgery. But it would take too much space for us to enumerate his discoveries of new and modifications of old operations and other contributions to his specialty. All the important and rare operations, which only fall under the hands of great surgeons, have been performed by him with more than average success. With an erect carriage and elastic step, and an eye and features kindling with animation, he was one of the best examples of the preservation of a splendid physical and mental organization by the observance of those laws of health he had so long and so ably advocated. What a contrast between him as a great surgeon and great teacher, and a man, and some of the poor, miserable, mentally and morally insignificant individuals not more than a hundred miles from Cincinnati, who want to be regarded as great surgeons, and who seize every possible opportunity to get their names in the newspapers! Dr. Parker was not a bookmaker, and even the reports of his cases—many of them of the highest importance and interest—have been made by other members of the profession. A volume compiled from these, and from his private memoranda, could not fail to be welcomed as one of the most important contributions to the physicians' and surgeons' library.

PROF. SAMUEL D. GROSS, M. D., LL.D., D.C.L., Oxon., LL.D., Cantab., died May 6th., the present month. It is very correctly stated of him that he was a man known to all the civilized world as one of the greatest surgeons that ever lived. He was born near Easton, Pa., July 8th, 1805. After obtaining his preliminary education at the Wilkesbarre Academy and the High School at Lawrenceville, N. J., he studied medicine with Dr. Jos. K. Swift, of Easton. He graduated from Jefferson Medical College in 1828, and began practice in Philadelphia, employing his leisure hours in translating several French and German works. In 1830, he issued his first original work, "Diseases and Injuries of the Bones and Joints." In 1833, he became demonstrator of anatomy in the Medical College of Ohio, Cincinnati, and two years later, Professor of Pathological Anatomy in the Cincinnati Medical College. Here he delivered the first systematic course of lectures on morbid anatomy ever given in the U. S., and while thus occupied, composed his "Elements of Pathological Anatomy," the first methodical treatise on the subject ever published on this side of the Atlantic or in the English language. Four years afterwards he accepted the chair of surgery in the University of Louisville. He held this position for ten years, when he resigned in 1850 to accept a similar professorship in the University of N. Y., vacant by the retirement of Dr. Mott. He resigned at the end of the first session, and returned to his Louisville chair. In 1856, he was chosen Professor of Surgery in the Jefferson Medical College, which position he filled until about two or three years ago, when, in consequence of the infirmities of age, he resigned, and was elected an Emeritus Professor. Dr. Gross was a very voluminous writer. Among his very many works are his "System of Surgery," upon which his posthumous fame will most probably mainly depend. It appeared in 1859 and has passed through six editions. It is comprised in two volumes, large octavo, and contains about 3,000 pages, and illustrated by over 1,400 engravings. It was translated into Dutch, among other European languages, and published at Nieuwediep, 1863, and is the most elaborate and exhaustive work on surgery ever written by one man. He edited a large work on "American Medical Biography," was one of the founders and chief editors of the *North American Medico-Chirurgical Review*, which suspended at the outbreak of the war, after a successful career of five years, and is the author of numerous addresses on medicine, surgery and biography, of a "History of American Medical Literature," and of a "History of the Progress of American Surgery During the Last Century." He is a member of the American Phil. Society; of numerous medical societies in the U. S.; of the Imperial Medical Society, of Vienna; Medical Society, of Christiana, Norway; Royal Medical and Chirurgical Society, of London; Medico-Chirurgical Society, of Edinburgh; Medical Society, of London; and British Medical Association, to which, on two occasions, he was accredited delegate. He was one of the founders and early presidents of the Kentucky State Medical Society. While in Louisville, he published an elaborate and exhaustive "Report on Kentucky Surgery," in which he first established the fact that the late Dr. Ephraim McDowell was justly entitled to the honor of being the father of ovariotomy, until then erroneously ascribed to other surgeons. In 1872, during his second visit to Europe, the University of Oxford, at its one-thousandth commemoration, conferred on him the honorary degree of D. C. L.; he had previously received that of LL.D. from Jefferson College, Pennsylvania. Dr. Gross was always a warm and decided advocate of professional progress and of a higher standard of medical education. He systematically and economically employed his time, and so, while able to punctually fulfill all his very numerous engagements, as a professor and practitioner, he was enabled to keep himself thoroughly informed in medical and general literature, and to become a voluminous writer. Large portions of his works were composed while riding around seeing his patients.

It was a great surprise to many in Cincinnati, who knew Dr. Gross, after hearing of his decease, to read the following telegram in the newspapers:

Dr. Gross' Remains Cremated.

WASHINGTON, Pa., May 8.—The remains of Dr. Samuel D. Gross, of Philadelphia, arrived here this morning and were taken at once to the LeMoyne crematory and placed in the retort. The body was accompanied by A. H. Gross and Dr. Horwitz. There were no ceremonies at the incineration, and the remains were reduced to ashes in two hours.

After learning of the cremation of the body of Dr. Gross we were shown the following extract, taken from a monograph published by him, which sets forth his views in regard to cremation, and will undoubtedly be read with marked interest. Directing his remains to be cremated on his decease, shows that he was sincere in his views.

"If people could see the human body after the process of decomposition sets in, which is as soon as the vital spark ceases to exist, they would not want to be buried; they would be in favor of cremation. Burying the human body, I think, is a horrible thing. If more was known about the human frame, while undergoing decomposition, people would turn with horror from the custom of burying their dead. It sometimes takes a human body, fifty, sixty, eighty years—yes, longer than that—to decay. Think of it! The remains of a friend lying under six feet of ground, or less, for that length of time, going through slow stages of decay, and other bodies all this time being buried around these remains. Think of thousands of such bodies being crowded into a few acres of ground, and then reflect that these graves, or many of them, in time fill with water, and that water percolates through the ground and mixes with the springs, and wells, and rivers from which we drink. Why, if people knew what physicians know, what they have learned in the dissecting-room, they would look upon burning the human body as a beautiful art in comparison to burying it. There is something eminently repulsive to me about the idea of lying a few feet under ground for a century, or, perhaps, two centuries, going through the process of decomposition."

"When I die I want my body to be burned."

How difficult it is, at this time for the mind to comprehend that the distinguished man and great surgeon, whom we once knew, is now but a handful of ashes contained in a small urn. How insignificant after all is the human being! How foolish it is to be filled with pride of ourselves.

SWINDLING AGENTS AND ADVERTISERS.—As our subscribers are aware, we are not in the habit of mentioning any grievances we may now and then suffer from advertisers and advertising agents. Although in a period of sixteen years, during which time the MEDICAL NEWS has done a full share of advertising, we have met with more or less losses, as any one would suppose, from individuals advertising with us, yet we have not exposed the parties.

We have been led to allude to swindling advertisers at this time, as we have recently learned that we have been victimized by a fraudulent advertiser who has more than once been exposed in the public prints. We refer to one Herman Conant, No. 5 Dey Street, New York. This person sent us an advertisement of a piano—Mendelssohn—requesting us to insert it in our advertising department a certain number of times. If we had made proper inquiries we might have learned at the start that he was a fraud, but as our time is very much occupied we did not, and gave directions for the insertion of the advertisement. He had the audacity to send us a long list of references, and if we had applied to any of them, as we have done since in similar cases, we would undoubtedly have been informed by them that they had never done any business with him, although he alleged that he had. A few weeks ago an individual came into our office soliciting business, and gave us several banks and business firms as references. On applying to these parties we were told by all, except one, that they knew nothing about him—had never had any business with him. The excepted one, who had knowledge of him, warned us against him.

We have learned to our cost that Mr. Herman Conant is a miserable fraud, who lies in wait to swindle the unwary. We have been told that there is no such company as the Mendelssohn Piano Co., except as he himself constitutes it. We hope that none of our subscribers have been victimized by him through his advertisement in the MEDICAL NEWS. But our journal is not the only medical journal, by any means, that he has succeeded in defrauding. His piano advertisement has been in nearly every medical journal in the United States, and, of course, he has victimized them all. Although we had before been suspecting that he was a swindler, we first derived positive information of the fact from the *Agents' Herald*, of Philadelphia, in which he was most thoroughly shown up. The same journal contained exposes of swindling transactions of some other agents who have sent us business, but we have concluded to await further developments in regard to them before publishing them as frauds in the MEDICAL NEWS.

We are happy to say that we have met with only a very few swindlers among our advertisers in the long journalistic period of sixteen years. In that time we have advertised for a great many houses, and there have been only a very few exceptional instances that the firms have not been precisely as they have represented themselves—doing a legitimate business and worthy of patronage. Old subscribers have undoubtedly noticed that not a few of our advertisers have continued their advertisements in the NEWS since its commencement. It has sometimes happened that we have been swindled by an advertising agent when the advertisers themselves have been all right. An advertising shark will obtain occasionally the advertisement of a good house, forward it to a medical journal, collect the money and keep the whole of it. Of course, such a house, as soon as they are informed of the shark's trick, will have no more to do with him. Now and then a pretended manufacturing house will employ a shrewd unprincipled advertising agent to get their preparations advertised for them in all the medical journals. An immediate correspondence is entered into with all the medical publishers, and their very lowest terms of advertising solicited. They are told that they must put their prices down to the lowest "bottom figures," or they will be omitted from the contracts that will soon be entered into with all the medical journals in the extensive advertising that is about to be done. After a while the *first* installment of copy of an advertisement is received, and the advertisement is directed to be inserted. But we have neither the time nor the space at this time to explain the tricks which swindling manufacturers and their agents employ to obtain free advertising of worthless medicines. In the near future we intend to expose a number of parties whom we owe it to ourselves and the profession to expose. Proprietary medicines are getting too common —many of them being utter frauds—and medical journals have been advertising them in a very reckless manner. It is time a halt was called.

There is not a house advertising with us at the present time in whose integrity we have not the utmost reliance; but as we have been led to speak of swindling advertising agents and some swindling advertisers that we have had at times, both for the purpose of self-protection and protecting our subscribers, we propose to have more to say at a future time.

INFECTIOUS DISEASES—CREMATION—JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.—We learn by telegram that at the meeting of the American Medical Association, now being held in the city of Washington, that on the 8th inst., Dr. George M. Sternberg, of the U. S. Army, offered a resolution stating that the exact knowledge necessary for the prevention of a majority of the infectious and pestilential maladies has not yet been obtained, and that Congress be petitioned to make suitable appropriations for the prosecution of scientific researches relative to the cause and prevention of the infectious diseases of the human race, under the direction of the National Board of Health, and that a permanent detail of our medical officers of the army and of the navy be authorized for the prosecution of researches of this nature.

The resolution was adopted, and a committee appointed to present the matter to Congress.

On the same day, Dr. Keller, of Arkansas, presented a resolution which recited that in a few years cremation of the dead would be regarded as a sanitary necessity; that the decision of the courts had pronounced this method legal, and that from hygienic, religious and sentimental standpoints this method of disposing of the remains of the dead was best. The author referred to the fact that the remains of the late Dr. Gross were now on their way to be cremated, and he asked the adoption of the resolutions as expressive of the opinion of the association.

The chair ruled that as the resolution introduced new business it was out of order at the time.

Dr. Toner made a report relative to the official journal of the association—namely, the journal published at Chicago called the *Journal of the American Medical Association*, which the association established to take the place of the yearly volume of transactions which used to be issued by it.

Dr. N. L. Davis, who was made the editor of the journal and has been conducting it since its establishment, at the request of Dr. Toner made a report of the condition of the enterprise, which showed the paper to be on a sound financial basis.

Dr. Toner, in continuing his report, said that the editor, Dr. Davis, had tendered his resignation, but now consented to continue in that capacity another year. But before action was taken upon the report Dr. Packard asked permission to submit a minority report.

"This is the first the Board of Trustees have heard," remarked Dr. Toner, "of the minority report."

Dr. Packard, in his report, stated that, in his opinion, the journal had not reached that standard which an official organ of such an association as this ought to have. He thought it was not intended to be merely a journal of the proceedings of the association, but that it should be a strong, positive periodical, the organ of the association and the exponent of the latest ideas in medical knowledge. He had understood from the chairman of the board that the editor had drawn no salary, but the report showed that he had. His objection was not founded on this, but on the character of the present publication. He would suggest that a trained and paid corps of editors be employed, and the office of publication be removed to either Washington, Philadelphia, or New York. The minority report was laid on the table by a vote of 191 to 74, and the majority report was adopted.

We presume that Dr. Packard is one of those gentlemen who have a hearty contempt for all things—men and institutions—west of the Allegheny mountains. He considers that the patronage of Western medical men with their money might be accepted, but that it would be undignified to further recognize them than to permit them to pay the expenses of an enterprise. We readily grant him the privilege of thinking as he pleases, and hope he may have much comfort in his views. When we meet with an individual who is under the impression that he himself and the few persons who live within a hundred miles of him are the only ones who know anything, we consider his sources of pleasure as very limited, and that it would be a sin to disturb him in the enjoyment of any of his conclusions, even though it happens we are located outside of the intellectual world.

Bausch and Lomb's Microscopes.—We have received from Bausch & Lomb a copy of their recent catalogue of microscopes, objectives, and accessory apparatus. The work of this house is fully equal to that of the best makers in the world, and is remarkable for cheapness. So cheap and efficient are their instruments that no physician can now be without a microscope for the reason that he can not afford the price. Their Model, Physicians', and Investigator microscopes are capable of any work for which a physician needs a microscope.

Twenty-five and thirty years ago very few physicians had a microscope. In fact, the majority had never looked through one. But at this time no physician can fulfill the demands required of a medical man by the law without having a microscope, unless, living in a large city where there are experts in every department, he has the opportunity to refer his investigations to a specialist in microscopy.

We are glad to know that microscopes are becoming very common with medical men. We have recently procured from manufacturers quite a number for friends who were under the impression that we could order to their satisfaction better than they could.

TWELFTH CINCINNATI INDUSTRIAL EXPOSITION.—The Exposition this fall, beginning September 3rd and closing October 4th, and which forms the Twelfth, promises to be far in advance of any of the previous ones. There will be exhibitors from every State in the Union and many from foreign countries. It will be worthy coming many miles to witness, and we have no doubt that thousands will be in attendance from every part of our great country. If there should be no other attraction, the great mass of people that will be present will be worth a long journey to see. But there will be other attractions than great crowds of people. Physicians, scientists, artists, agriculturists, mechanics will find collections especially interesting to each of them. The commissioners are sparing no labor to make the coming Exposition, if possible, but little short of the great Centennial Exhibition of 1876. We hope we will have an opportunity of seeing all our friends in Cincinnati the coming fall.

REX DISINFECTANT.—This is the name of a disinfectant which has the two essentials which every disinfectant, designed for general use, ought to have—efficiency and cheapness. It can be relied upon to do all that it is represented to do, while its cost, in proportion to that of others, is very trifling.

It can be employed in the sickroom, water closets, sewers, cellars, and wherever a disinfectant is required. Placed in the box or inclosure of a water closet in a dwelling house, and all offensive smells will be destroyed at an expense of probably not more than a $1.00 or $1.50 a year.

For full particulars we advise parties to write to Dr. A. E. Duncan, Yellow Springs, Ohio.

FOR SALE.—There has been left at this office, for sale, a pocket case of instruments, entirely new, made by Autenreith. Price $15—cost over $20. Fine opportunity to secure an excellent case of instruments at a very reduced rate.

THE
CINCINNATI MEDICAL NEWS.

VOL. XVII. NO. 198. Old Series. JUNE, 1884. VOL. XIII. NO. 6. New Series.

Original Contributions.

Translations from Our Foreign Exchanges.

Translated for MEDICAL NEWS, from the French of Prof. Saffey, by Dr. Illowy, Cincinnati, Ohio.

THE LOCOMOBILITY OF THE BRAIN.

By M. Belchard, Perpetual Secretary of the Academy of Medicine, Paris.

BEFORE replying to the somewhat unexpected propositions of M. Luys, I believe it absolutely necessary to determine, in a clear and precise manner, the subject of debate.

The Academy, however, may reassure itself; I shall be brief and shall, above all, endeavor to be clear, a thing not to be despised in the study of such a subject.

The question of the movements of the brain is an old one, already; it has reappeared in the last fifty years, at least, in all works on physiology. In principle, a profound difference separated the physiologists in this respect; to-day there is a perfect agreement on this point among all persons who have studied the subject lately, among all those who have personally experimented on this point—experiments properly conducted.

I must say, at the outset, that the expression, "Movements of the brain," is a rather too ambitious one, and that it ought to be replaced henceforth by shaking of the brain or circumscribed changes of volume within very narrow limits. I must also add that these changes are not special to the brain, and they can be noticed everywhere where vascular organs exist, in the limbs and even in the lower extremities. All the world knows in fact that an Italian physiologist, M. Mosso, discovered, by the aid of a very delicate instrument, the pletysmograph, that very circumscribed changes of volume were constantly taking place in all the viscera and in all the limbs, in accord with the respiratory and circulatory movements. M. Marcy has also shown, by the aid of one of his most ingenious instruments, that if, for example, the hand be plunged into a closed vase filled with water to which an open tube has been fitted, that the liquid in the open tube will present a double oscillation, is ochronous with the movements of circulation and respiration.

That which is alone peculiar to the brain is, that it is enclosed in an inextensible box; but the changes of volume which it experiences in these limits are none the less subject to the same laws. It is easy to assure oneself of this fact.

Let us look at the facts at first; and as physiology has the privilege of being able to examine the living animals, let us study what results have been obtained by experimentation on them. When under these conditions (of careful experimentation.—Tr.), a button of bone is removed from the vault of the cranium of an animal, and it is easy to see the nervous mass alternately rise and sink; doubtless these movements are of small importance; but if instead of contenting ourselves with a mere ocular examination, we make use of some very sensitive apparatus, as, for instance, caoutchouc pouches tied to polygraphic levers, inscribing on blackened cylinders,* we will see a double series of movements produced; the first, to the number of fifteen or eighteen to the minute, is ochronous with the respiration; the other, occurring to the number of seventy or eighty to the minute, but more restricted and with all the oscillations of the circulation.

Can it be said that that which can be done on a portion of the encephalon laid bare in the living animal, is impossible to do in the human being itself? Not in the least; for there is a certain period of life at which the bones of the cranium are not yet completely ossified throughout their whole extent, and on applying instruments of precision, for example, to the fontanelles, the same phenomena are beheld. I will add that these same facts have been noted in the adult man, whilst undergoing the operation of trephining, and in certain surgical cases.

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*Like apparatus of M. Marcy, described on page 227 of Foster's Physiology.

Very slight movements, circumscribed within very narrow limits, are found in man; they can, however, be easily explained. In fact, it is perfectly exact that the vault of the cranium is closed; but the cavity of the cranium, and the spinal cavity which is a prolongation of it, are not everywhere rigid. There exist, especially in the spinal canal, at intervals, extensible points like the intervertebral discs and the yellow ligaments, besides the intervertebral foramina which give passage to the spinal nerves; and, lastly, the whole encephalo-spinal nervous mass is surrounded by a particular liquid, known as the cephalo-rachidian liquid, which is found under the visceral layer of the arachnoid, and which, according to circumstances, is carried from the cranial to the spinal cavity, or from the spinal into that of the cranium. Owing to this liquid, to these ligaments, to these intervertebral discs, and, lastly and above all, owing to the vast sanguineous reservoir known as the venous plexas found in the spine; it is that under the influence of the alternate movements of repletion and depletion—owing to all these conditions, slight changes in the volume of the nervous system are produced.

I limit myself to putting these points, which, it seems to me, are incontestable. But it is not of this that M. Luys speaks to us; he speaks to us of displacements in mass of the brain, of durable displacements; displacements continuing as long as a particular attitude is maintained. According to him, the brain detaches itself from the cranial vault and rests upon its base in the erect posture; it detaches itself from the frontal bone in lying down (on the back), and becomes detached from one or the other parietal when a lateral situation, either right or left, is assumed. And that I may not be accused of imputing to him an opinion which is not his own, I will read the following paragraph of his communication, as it was published in our *Bulletin:*

"When, in fact, we are in a vertical position, the brain is not in contact with the concavity of the cranial parietes, as we are usually led to believe. It sinks down and is slightly heaped upon itself.

"When we lie down upon the back, it becomes displaced by a slight sliding motion, by reason of which a slight space is left between the frontal lobes and the frontal bone. All this free space disappears when we take the inverse position —lying on the belly.

"When we are in a dorsal decubitus, the lobe which is superior presses down lightly on its congenêre and causes the falx of the cerebrum, which serves as a support to it, to sensibly deviate from its normal position."

And further on M. Luys again says: "When the man is in the erect position, the cerebral mass sinks down upon itself and, in abandoning its contact with the cranial parietes, leaves an empty space which may be estimated at the thickness of five or six millimeters on the cadaver, and which is most probably somewhat less in the living body. When the body is in a lateral decubitus, the cerebral mass again obeys the laws of gravity. The lobe which is superior presses down on its congenêre through the falx cerebrum, which opposes but little resistance.

"Lastly, I would remark that the presence of the cephalo-rachidian liquid may, to a certain extent, modify these displacements and moderate their amplitude; but it can not annihilate them, for there is always in the normal state a certain amount of space between the brain mass and the bony covering. This liquid always obeys the laws of gravity, and is displaced according to the different positions the head may take. The brain, surrounded by this liquid atmosphere, follows the same oscillations with it, and may be likened, in its general relations, to the fœtus plunged in the amniotic liquor, and which also accommodates itself passively, with its liquid atmosphere, to the uterine parietes, enclosing it to the different attitudes assumed by the female."

Since, as the paragraph just cited indicates, it is a physiological question, it seems to me that physiological proofs should have been brought to the support of the singular assertions here made; nevertheless, M. Luys furnishes only purely anatomical demonstrations; I shall therefore, with his permission, indicate some others which absolutely combat his views.

If we examine the encephalon in its cranial box, we find that it fills it completely with its coverings, its vessels which nourish it, and the cephalo-rachidian liquid destined to protect it against compression and shocks, so much so, that its most superficial envelope—the dura mater—is immediately contiguous to the internal face of the cranium and performs the office of periosteum of the internal part.

On the other hand, on the part of the spinal cord we find at once a periosteum and a dura mater, and every one knows that the cord does not by itself fill the spinal canal; the space between it and the fibrous envelopes is filled with an adipose, cellular tissue, which grows more abundant as the lower extremity of the cord is reached, and by the venous rachidian sinuses. We may therefore affirm that in the cerebral cavity and in the spinal column, as in the other cavities of the economy, there is no empty space; it is all filled. We can not therefore admit, as M. Luys has done, a free space, a sort of vacuum, between the cerebral mass and the bony walls enclosing it.

But that in order such a vacuum should be produced, that the brain should detach itself from the parietes enclosing it, we must consider to what force it would have to obey, to struggle, even in the vertical position, against the atmospheric pressure. Let us briefly figure:

The brain weighs, on the average, about a kilogramme and a half (℥ 53); it is suspended in a liquid of uniform density which surrounds it so well that it weighs but lightly upon its base, its weight being distributed at all points of the circumference by virtue of the principle of equality of pressure. It would necessitate, to detract it from the cranial vault, that the force deployed be equal to a column of mercury 76 centim. high, having for its base the expanse of its middle horizontal plane about two decimeters square; the weight of such a column represents more than 200 kilogrammes.*

M. Luys sometimes compares, by assimilation, that which happens in the cranial cavity with the movements to which the organs, enclosed in other cavities lined with serous membranes, are susceptible. He will permit me to call his attention to the fact, that it is precisely the organs in the splanchnic cavities, which he takes as terms of comparison, which are never separated from the parietes enclosing them; atmospheric pressure intervenes and the organs are not detracted for a moment from the serous covering. Why should the brain be an exception to this law? Should it be for reason of its own weight? I have shown that this is impossible? Should it be on account of the vacuum already existing there? This vacant space does not exist; this is still more impossible.

M. Luys has shown us here many drawings and original pieces, pierced with many small wooden pegs; but these are only anatomical arguments, and should certainly not be of greater weight in a question purely physiological than the physiological experiments of which I have just spoken.

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*A kilogramme equal to ℥ 35, grs. 120.

He adds moreover: "Certainly on this point of cerebral physiology, every one will agree with me that it is impossible to experiment directly."

He refers to man; but what would human physiology be if it were not possible to apply to it the experiments made on animals? Besides, these experiments have been made and they declare formally against the theories of M. Luys. They have been everywhere repeated since more than thirty years; here is one which I extract from the remarkable thesis of M. Lalatte, and which seems to me decisive.

After having removed a button of bone from the cranium of an animal, a glass tube, armed with a stop-cock, is hermetically fixed to the cranial parietes; water is now poured into the tube until it is arrested at a certain level. It is now easy to determine that the liquid column presents a double oscillatory movement, due to the respiration and the circulation. As long as the stop-cock is open these movements occur, but as soon as it is closed they cease; and whatever be the position in which the head of the animal be placed, the liquid column does not leave the stop-cock. It would have to be otherwise if, as M. Luys declares, a vacant exists between the brain and its bony parietes.

I will sum up by saying that there are found constantly in the encephalic mass: 1. Slight changes of volume isochronous with the movements of respiration; 2. Other changes of volume, feebler than the preceding, isochronous with the arterial pulsations. These are facts clearly demonstrated, whilst the movements of displacement of which M. Luys speaks are neither demonstrated nor demonstrable. (*Loud and general applause.*)—*Tribune Medical, No.* 817.

THE LOCOMOBILITY OF THE BRAIN.

A reply to M. Luys, by Prof. Saffey (the eminent French anatomist). Session of the Academy of Medicine, April 21, 1884.

I HAVE repeated the experiments of M. Luys and have arrived at results contradictory to his; but before relating the experiments I think it necessary to state some facts which have served as a basis for my investigation.

Before entering upon the study of the movements of the encephalon the following points must be determined:

1st, The absolute weight of the encephalon.

2d, The physiological weight of this organ, that is to say, what it weighs when plunged in the cerebro-spinal fluid.

3d, The respective position of the encephalon and of the cerebro-spinal fluid.

The absolute weight of the encephalon has been fixed by Broca at 1500 grammes. Broca is the only author who has fixed the weight of the brain at so elevated a figure. To determine the weight Broca collected all the facts published in foreign countries, especially Germany, and from the mass of facts so collected he struck an average. But in proceeding thus, Broca misconsidered an important principle—he accumulated a very great number of facts more preoccupied by their number than by their value. At the present day the assertions of Broca are beginning to be doubted; a reaction against them has set in, as proven by the following facts: Last summer I visited the Museum of Onthropology, and there I asked of all the former co-laborators of Broca what they thought of the figure assigned by their master to the brain. They were unanimous in their reply that Broca had exaggerated the weight of the encephalon, and that the figure of 1350 grammes, which I had at another time assigned to this organ, should be considered as the correct expression. I think, coming from such a source, the argument has an incontestable value.

Let us now see what is the physiological weight of the encephalon.

At the first I proceeded in the following manner: I took the encephalon of four individuals of different ages and sexes. I determined the absolute weight of the encephalon of each of these four subjects; I then plunged each of these organs into a vessel filled with water. I determined the volume of water displaced by each of them and subtracted the weight of these different volumes of water from the absolute weight of the organs. Striking an average of the different weights, I found that the physiological weight of the encephalon is 45 grammes, that is about one-thirtieth of the absolute weight.

According to some authors the figure of 45 grammes would be too high—it should be rather about 33 grammes. In my opinion, however, it is better to admit that the figures 45 grammes are exact.

We must now examine the position of the cerebro-spinal fluid in its relation to the encephalon.

The majority of authors admit that the cerebro-spinal fluid is spread uniformly around the encephalic mass; if it were so this argument would support the position of M. Luys, but we have here again an inexact assertion. In reality the cerebro-spinal fluid is situated in the vault of the cranium, and the encephalon reposes directly in the base of the cranium, without the intermediation of any fluid. On the other hand, the space that separates the cerebral hemispheres from the osseous surface of the cranium is ordinarily 6 millimetres; but this interval may vary. Like other organs, in fact, the encephalon may become thin—may atrophy. This occurs more particularly in all the affections producing marasmus. In such a case the brain retreats further from the vault of the cranium, and the cerebro-spinal fluid fills up the void thus created. I have seen in such cases the brain distant from the vault of the cranium 1 centimetre, 1½ cetimetres, and even 2 centimetres. The inverse may be equally well observed—the encephalon may become loaded with fat like other organs and completely fill the cranial cavity, which produces in individuals so affected a condition of perpetual languor and an uncontrollable tendency to sleep.

I shall make a brief exposition of the arguments which have enabled me to establish that the cerebro-spinal fluid is wanting at the base of the cranium.

The first argument I shall borrow from the laws of physics: The encephalon is heavier than the cerebro-spinal fluid; it must, therefore, occupy a position lower than the liquid.

Anatomy furnishes us a second argument equally irrefutable; the internal surface of the base of the cranium is the seat of imprints and sinuous lines which correspond exactly to the projections and to the anfractuosities of the base of the encephalon, and which shows that the cranial base is as it were the mould of the inferior face of the encephalon. Nothing similar exists on the internal surface of the vault, this is smooth and uniform.

I reserve for the incredulous a third argument—one verified *devisu*, and which I will develop later on.

I now come to the main subject of the discussion. M. Luys supposes that the encephalon is capable of displacement in its cranial box in every direction, that it can accomplish vertical movements from above downwards, and from below upwards, antero-posterior and lateral movements.

To demonstrate the existence of these movements M. Luys established a window in the vault of the cranium, and found that the encephalon was not in contact with the vault of the cranium—that it was separated from it by an interval of 6 millimetres. This is perfectly exact; I have already so stated it myself, but the interpretation given thereto by M. Luys is false. To prove it I have made the counter proof of the experiments of M. Luys.

I placed a subject on the table in such a manner that the vault of the cranium looked downward and the base upward. With the saw I removed the whole face of the subject and took the precaution of sealing up the occipital foramen so as to prevent the outflow of the cerebro-spinal fluid. Things being thus prepared, I established a first window in the base of the cranium on the level of the floor of the orbit. I thought that in this subtraction I should find the encephalon somewhat removed from the osseous surface and that a certain quantity of the cerebro-spinal fluid had taken its place. There was none of it. I verified that the two surfaces, osseous and nervous, were in immediate contact with each other. I established a second window about the region of the sphenoidal fossa; I established two other windows on the rest of the cranial base and I assured myself that at these different points there was no interval between the encephalon and the internal face of the base of the cranium.

How should these results be interpreted? I remarked that in this experiment the cerebro-spinal fluid remained in the cranial cavity and that the encephalon was urged towards the cranial vault only by its physiological weight. But this weight is very little, and I thought that the vascular and nervous apparatus which unite the cerebrum to the other parts of the body could offer a resistance sufficiently great to balance the physiological weight of the brain. To assure myself of the reality of this fact, I allowed the cerebrospinal fluid to escape, and that which I had foreseen occurred—the encephalon having recovered its absolute weight fell to the vault of the cranium—this being placed lower relatively to the base. But this movement of the encephalic mass has not the signification attributed to it by M. Luys—this is a movement artificially created under certain determined conditions.

To further complete this demonstration, I established a fifth window in the vault of the cranium analagous to the one made by M. Luys, so as to give more perfect issue to the cerebro-spinal fluid; placing now alternately the vault of the cranium upwards and again downwards, relatively to the base, I perceived the occurrence of the vertical movements described by M. Luys. But, I repeat, all these movements are artificial; they can only occur when the cerebro-spinal fluid has ceased to exist, that is to say, when, instead of being reduced to its physiological weight, the encephalon has recovered its absolute weight.

I made analagous experiments in order to study the antero-posterior and lateral movements described by M. Luys; I have obtained identically the same results.

It results, therefore, from this expostion that the movements of the encephalon observed by M. Luys are factitious and artificial movements, which can never occur when the encephalon is immersed in the cerebro-spinal fluid.

Moreover, if these movements existed in reality they would be a source of permanent danger for the individual. The slightest movement of the body being capable of provoking these displacements, the encephalon would be hurled every moment against some part of the cranium, which, with the fragility of the nervous substance, could not fail of giving rise to very grave accidents.—*Tribune Medical.*

DISCUSSION OF THE FOREGOING PAPERS BY DR. CONSTANTIN PAUL.

Besides the movements under discussion, the brain, like other organs, may become larger or smaller, atrophied or hypertrophied. These diverse modifications, known to Cruveilhier and Saffey, cause inverse variations of the quantity of cerebro-spinal fluid contained in the cranial cavity. When, from any cause, there is a marked diminution of volume, the abundance of the fluid is such as to resemble a veritable hydrocephaly—a *hydrocephaly ex vœno.*

The seat of such an effusion is the cavity of the lateral ventricles, which, almost nil when the brain has its normal form, may form a veritable pouch filled with fluid when the volume is mediocre; as we observe, for example, in senile or cachectic atrophy.

From this it follows that the lateral ventricles have the following functions:

The cranial cavity being immobile, the size of the ventricular cavity compensates for this immobility; when dilated, it prevents the convolutions from retreating too far from the vault of the cranium in cases where the encephalic mass has grown smaller. The consequences of this fact are easily comprehended.

If the diminution of the encephalic mass would result in a retreat of the convolutions from the vault of the cranium, they could not execute this movement without a lessening of their perimeter, a circumstance most unfavorable from a functional point of view.

But thanks to the amplification of the ventricles and the fixity of the convolutions, the brain may undergo considerable variation of volume without that the surface of the convolution be in the least changed.

DR. MARCUS SEE. (SESSION OF MAY 20.)

Dr. See took up the subject of the locomobility of the brain brought forward by M. Luys, and discussed it *in extenso;* referring, also, to the discourse of Prof. Saffey.

His scientific conclusions are as follows: 1. That the large space found in the cadaver between the brain and the cranium, when this bony structure has been opened, did not exist as long as the head was intact, and certainly not during life.

2. In the physiological state, the encephalon fills the cranial cavity with the exception of the small circumscribed spaces filled by the cerebro-spinal fluid.

3. That in cases of atrophy of the brain the quantity of this fluid which surrounds the encephalon becomes greatly augmented, but not in the proportions supposed by MM. Labordre and Saffey, judging from the amount of fluid that flows out when the cranium is opened. A great part of the escaped fluid comes from the ventricles, dilated in these cases, as has been well demonstrated by our well-known colleague, Dr. Constantin Paul.

4. That, under all circumstances, the encephalon is immobile in the cranial cavity; that it undergoes no change of position under the influence of weight, and that it is subject to such slight displacements only as are necessitated by the encephalic circulation.

5. The visceral layer of the arachnoid is always in perfect contact with the dura mater, lined by the parietal layer, unless an effusion, the result of disease, has occurred into the sac of the arachnoid.

6. The cerebro-spinal fluid concurs to the protection of the encephalon by distending the closed cavities formed by the serous membranes, so as to form over the whole surface of the encephalon a series of water cushions, analagous to the water cushions and mattresses that are now manufactured.

Inflammation of the Ear, and its Relations to what is Commonly Called "Taking Cold."

BY BENJ. J. RUDDEROW, M.D.

Read before the Philadelphia County Medical Society, February 27, 1884.

In presenting my paper this evening, it is not as an expert nor to specialists in this branch of medicine that I wish to speak, but to place before the general practitioner some few points that may help prevent some of the bad results which are so frequently met with as come from the tardy, timid, or ignorant management of such ear affections as arise from an ordinary catarrh, or that happens as one of the complications of sore throat, measles or scarlet fever. It is from the so-called taking cold that we find many of the acute or middle-ear diseases arising. When one is attacked with a cold, or has a more or less acute catarrh, it is generally traceable to a sudden or unexpected fall in temperature, or the exposing of a limited portion of the body to moisture, or it may be to the cooling effect of air in motion, or the depressing effect of air overheated or impure in assembly rooms, dormitories, etc. It often happens that the best conditions of ventilation and heat can not be had; then how may the body be prepared to not only withstand the inevitable exposure, but to make a draught of air one of pleasure and of health?

Living as we ordinarily do, without a sufficient amount of active exercise out of doors, the surface of our bodies becomes morbidly sensitive to those influences that produce an acute catarrh. Thus one finds amongst people great dread of a draught, and the average person will rather incur the risk of contracting a fever or some contagious disease in a crowded vehicle or assembly, than that he should have these places freely ventilated. By far the greater majority of mankind, while resting, consider air in motion to be one of the most morbific influences that one may meet. It is this, I think, that presents us many obstacles in the way of properly ventilating public vehicles and buildings. We do not, I think, find many persons so educated as to endure, when at rest, air in motion, far less than to find pleasure and health from it.

But I speak from experience when I say it is very easy to overcome this morbid sensitiveness and often fatal tendency to become an easy victim to the causes of a common cold. But how may one teach himself to endure a draught and lessen the tendency to catch cold? By first diminishing the morbid sensibility of the body to catch cold, and this can best be brought about by a graduated exposure and friction of the skin in a daily air or sun-bath, to be followed by such local sponge-baths as one may be able to react from speedily. This reaction to be speedy and spontaneous, it is necessary that the temperature of the water should not be much lower thon 30° Fahr.

With the first air-bath it is well that the body should be exposed but for a short time only, as, for instance, the time taken to walk briskly across an ordinary bed-chamber. Soon by a little practice in this way, the time of exposure may be prolonged to fifteen or twenty minutes, and the temperature of the bath used accommodated to that of the outer air. The healthful effects of these exposures may be still further increased by two or three deep, chest-filling inspirations, with closed mouth, and by a few such movements of the arms as would tend to invigorate the chest-muscles and quicken somewhat the action of the heart. About four times a week, before any water is applied, and while taking the air-bath, the whole surface of the body should be briskly rubbed till there is a sense of glow and warmth of the skin, with hair-mitten, flesh-brush or coarse towel. These exercises should at first be of short duration, and more especially so if the heat-producing powers of the body are low. Also, if the subject be too feeble, the rubbing should be done by himself rather than by another, as it is thus made more beneficial. These exercises should, in all cases, not be attempted in winter, except in a sunny room or one heated artificially.

We should bear in mind that the object of our treatment is to make the body less morbidly sensible by the exposing of the entire skin surface daily to air, light friction and cleansing, in an atmosphere nearly like the prevailing temperature. These daily air-baths should not be indulged in for too long a time, nor yet should invalids indulge in the full practice at once, but enter upon it deliberately and cautiously, as one not knowing how to swim enters the water gradually. These few hints, with the cautions given, will, in a few weeks, make almost any one not only less susceptible of taking cold, but better in every way; but at the same time I do not wish to be understood that by training the body to be less susceptible to the sudden changes in temperature, that one may with impunity, without hat or coat, stand exposed to a northeaster.

In the preventive treatment of catarrhal affections of the middle ear, food, clothing and exercise are hygienic factors that have important relations in the causation of catching cold. Alcoholic stimulants, even in moderate doses, do increase the liability of taking a cold, and one who has been deluded by the idea that by so doing he can keep out cold, had best immediately put on an additional covering to keep his animal heat in. As a rule, except in certain conditions, alcohol is a very bad food, and what those conditions are has not as yet been determined with anything approaching an agreement by even the most learned chemists and physiologists. Articles of food that help produce dyspepsia, such as greasy fries, hashes and other meshes found on the tea and supper table, so fearfully and wonderfully made, should be avoided. Train the stomach and digestive organs to be the servant, not the master; keep them in vigorous action by the use of coarse farinaceous foods and milk. The farinaceous articles of food contain not only many tissue-building ingredients that are indispensable, but in a mechanical way, by their contact with the digestive organs, do a work similar to that which friction of the skin does for the surface of the body in hastening the desquamation of effete and sticky epithelium and the cleansing of the follicles.

Let the breakfast be one of thoroughly boiled farinaceous food, eggs, milk or cream, and fruit; a light lunch of fruit, or milk and bread; dinner hearty, but free from condiments and spices, including fish, meat and vegetables; the tea somewhat similar to the breakfast. As to clothing, flannel should be worn next the skin, day and night, by persons of all ages. The notion that one can toughen children by insufficient clothing and a promiscuous diet, is a fallacy, as we all know.

We often meet people, otherwise intelligent, who keep the legs and chest of their children bare, and go themselves without flannel from the supposed good health of savages and paupers. The flannels worn by day should be changed at night, and when taken off should be turned inside out and allowed to dry and air thoroughly. The neckties and bands should be loose, so as not to check the return circulation in the neck; the foot-covering thick, loose and low-heeled, with a broad sole, allowing the interosseous spaces room, so as not to press on the nerves and vessels that vivify the toes.

From the preventive measures, we will pass to some of those conditions which demand promptness on the part of the medical practitioner in his effort to cure the external or middle-ear inflammation at the earliest moment. It is not necessary to systematically go over the various diseases, my purpose being to give a few points that may be of use to the general practitioner, and not my views and opinions as an expert.

Every medical man should be able to distinguish the drum-head or tympanic membrane, and any one who can introduce a catheter can incise a drum-head. Earache, generally badly treated, arises commonly in the beginning from one or two forms of ear disease, either inflammation of the dermoid or periosteal lining of the external auditory canal, or an acute inflammation of the middle ear. Pain and deafness often occur in the course of common boils in the external auditory canal. How is one to make the distinction between such a disease or something deeper seated? Each one should make himself so familiar with the external auditory canal as to tell at sight whether a given canal is changed in calibre or not, and if changed, what is the nature of the change. Inspect the canal, and with a probe, guarded with a piece of cotton, explore it thoroughly, carrying the probe around its entire circumference, touching each segment. In this way one can ascertain whether there is a focus of local inflammation, and having found it, then with a sharp, curved bistoury, incise clear down to the bone. The earlier this is done the better. After the incision is made, foment the ear with warm water from a fountain syringe; poultices in these cases to be avoided, as the uninterrupted application of heat tends to beget œdema; making the canal more or less boggy, thus helping to produce a successive crop of boils, or setting up an obstinate or diffuse inflammation. If incision should do no good, apply one or two leeches in the hollow at the base of the tragus, half an inch in on the front wall of the auditory canal. Two or three leeches applied in the position mentioned I have found to do more good than when applied in front of the tragus, or over the mastoid, except there be an inflammation of the mastoid cells, commencing to outcrop behind the external ear.

Persons consult us in reference to pain and deafness in the ear; they tell us that they have had a cold, a sore throat, or have been using a nasal douche; their rest has been broken, they have had continual pain and agony; what are we to do —order a poultice, and give an anodyne to relieve the pain, or, if in the case of a child, tell the parents to apply a poultice and await the discharge of pus? It is just such cases treated in this way that go to make up a large bulk of incurable cases of ottorhœa; they are the ones that worry the aurist by their obstinate character, and end in fatal temporal or bone disease. When consulting a patient suffering as above, act promptly. Take the hearing distance with the watch, examine the auditory canal and see that there is no inflammation there external to the drum-head. Apply leeches inside the hollow of the tragus, favor bleeding by hot fomentations, and if the pain and deafness are not relieved within a few hours, incise the drum-head with a fine straight knife or bistoury. Carry the incision from just below the extremity of the long process of the malleus to the lower border of the membrane. After this has been done, inflate the ear with a Politzer inflator, or get the patient to hold his nostrils closed by means of his fingers, and then blow strongly with closed mouth into the nostrils.

Syringe the ears with a warm solution of salt and water, carbonate of soda, or boracic acid. This syringing with warm water is objected to by many. After the syringing give your anodynes; not before, as the relief given before the incision may mask the processes going on in the ear and stupefy your patient until something bursts, that meaning, generally, a more or less hopeless rent in the membrane, or, this not happening, a thorough invasion of the mastoid cells. Repeat the leeches if necessary, and the paracentesis to cut short the inflammation. Though the paracentesis should be done every day for a week or more, one need not be afraid, I think, of injuring it, as it will not do as much harm as to leave the products of inflammation dammed up in the drum-cavity, to destroy by their macerating process the machinery, threaten the portals of the internal ear, stuff the mastoid cells, or break through a more or less disorganized ear-drum. As a rule, persons suffering with earache need not be kept indoors except for a few hours, unless in bad weather. Moderate walking appears to lessen the pain, and seems, whether from the posture of the body or the influence of that form of locomotion upon the circulation in the head, to quicken the healthy process of resolution. Give the anodynes when the pain is severe, and encourage the sufferer to walk about slowly until a decided sleepiness is induced. But the principal object in this state of the disease is to keep a free opening through an artificial drum opening in order to allow of the escape of all inflammatory products. See the patient every five or six hours during the first two or three days, and whenever it appears that the opening has closed that has been previously made, repeat the paracentesis. If the opening previously made should be closed, if possible, pass your knife through it, but if that cannot be done, then make an incision through the lower part of the drum, below the malleus.

Morphia, chloral and bromide of potassium to relieve pain, often a large dose of bromide, with a hypodermic, will produce happy results. Some form of magnesia salts is, I think, an admirable laxative, or the bitter water alone, or with hot water, a gill or two of the former to a pint of the latter. Let the diet be nutritive, especially in the early part of the day, but as the pain occurs mostly at night, it is best not to fill the stomach at that time.

One cannot be too prompt on evacuating the middle ear when there is an inflammation of that part. Delay is dangerous, and the paracentesis does no harm.

In measles and scarlet fever, examine the ears daily, and anticipate, if possible, the ulceration of a tympanic membrane, which so frequently occurs in the progress of these diseases. If the general practitioner would only examine daily the ears of those afflicted with scarlet fever or measles, and, finding them inflamed, treat them promptly, a great number of those obstinate or incurable otorrhœas and middle-ear troubles met with would be prevented.

No practitioner is really prepared to treat a case of scarlet fever or measles who is not able, at least, to recognize the drum-head when he sees it, and to perform the simple operation of paracentesis.

DISCUSSION ON INFLAMMATION OF THE EAR.

Dr. C. H. Burnett, in opening the discussion by request of the Chair, said: It is very important to find out the real cause of the pain and inflammation in the ear. Very often the pain is due simply to a closure of the Eustachian tube, and not to inflammation in the tympanic cavity, or it may be due to an inflammation in the membrana flaccida, or Shrapnell's membrane, in the upper part of the membrana tympani, the latter being unaffected. In the former instance the membrana tympani is drawn inward by the vacuum formed in the middle ear by the closure of the Eustachian tube, the ossicles are forced inward, pressure is exerted on the contents of the labyrinth, the filaments of the auditory nerve in the semi-circular canals are compressed, and reflex irritation of the cerebellum, with vertiginous symptoms, result.

Inflation will remove in many cases the pain in the ear and other symptoms, without the resort to leeches or paracentesis.

The surgeon should not be swift to incise the membrana tympani, especially simply to relieve pain in the ear. The membrane should be incised only when it bulges in consequence of fluid accumulations within the tympanic cavity. If an acute inflammation exists in the membrana flaccida, çausing pain, this part of the membrana tympani may be incised with great advantage. Repeated incisions in the membrana tympani, especially in acute cases, for the relief of pain, are rarely if ever demanded. When suppuration and discharge have been fully established, cleansing by the use of absorbent cotton on the cotton-holder and the use of powdered boric acid, either pure or in combination with resorcin or chinoline salicylace, *i. e.*, the dry treatment, will be found more efficient than the use of the syringe or astringent drops.

Recurring again to acute cases of inflammation in the ear and earache in children, I would recommend a sudorific and anodyne treatment with the administration of aconite in proper doses, as preferable to depletion or scarification about the ear. The child should be of course carefully housed during the acute and painful stages of the disease. The surgeon should bear in mind that when called to see a child or any one affected with acute inflammation in the ear, that domestic remedies may have been used, and have aggravated and masked the disease. Very often the ear pain may be relieved by simply washing from the auditory canal various irritant salves, and a host of pungent domestic remedies, which would be enough to make a well ear ache.

Dry heat is the best remedy in the early stages of many cases of otitis, and its application will often bring about a resolution of acute congestion in children or adults. In fact, at the outset mild remedies or nothing should be applied to an ear acutely inflamed, whether the seat of the disease be in the external canal, the drum-membrane or the drum-cavity.

If a furuncle be diagnosed in the auditory canal, it should be incised at once. This usually obviates the necessity of all forms of poulticing, and prevents the tendency to the formation of other boils by cutting short the congestion in the skin of the canal.

Dr. Lawrence Turnbull: I cannot but express my pleasure at the way the subject has been brought before us, namely, the hygienic importance of the subject. Most of you are aware of the publication of my little work on this subject, and of the proposition which will be found in it worded as follows: "Of all the injurious influences combined, none, however, are so hurtful to the integrity of the human ear as cold."

All the main propositions which the gentleman has put forth in his essay I approve of, but I would make this reservation, that it is always a difficult matter to determine whether we have a true catarrhal inflammation of the middle ear to treat or a purulent one, so frequently do the symptoms run together and become mixed. In the ordinary or simple form of catarrhal inflammation of the middle ear you will have a rapid development of acute inflammation with pain, heat, swelling and redness, and in from twenty-four to forty-eight hours a sudden giving way of the drum-membrane, followed by a discharge of mucus not mixed with fully developed pus, and the child almost soon recovers from it.

In the second form you have an acute inflammation which involves the deep-seated tissues, blood-vessels, etc., and if not checked promptly will ultimately destroy the membrana tympani, and may involve the bone or brain itself, with profuse discharge, for days, weeks, or even months, of pus, blood, and broken-down tissues and bone. Now, I consider that the most important treatment is to relieve pain, and I find in little children with their distressing cries which appeal to every one's heart, that nothing is so good in the early stage as to apply a bag of hot salt or sand, and covering it with a piece of flannel, place the patient's ear over it, or applying by binding it to the ear, as the little one is very restless and tosses about. If there is no hope of the resolution of the inflammation, then moist heat should be applied by means of a large hop poultice covered with oil silk, and renewed when it becomes cool. After using all the ordinary means to prevent and control inflammation, and none are of so much importance as those which afford relief to pain and quiet the excited nervous system, I administer to children the syrup of chloral with bromide of potassium, or in place of the chloral the camphorated tincture of opium; while to the adult I find nothing so prompt to relieve the agonizing pain as morphia sulphus and atropia sulphas, the first in doses of $\frac{1}{12}$ to $\frac{1}{8}$ of a grain, and the latter in $\frac{1}{150}$ of a grain to $\frac{1}{200}$, combined with a minute portion of the sulphate of odium in solution, and administered hypodermically. Some good authorities, like Politzer, prefer to give the morphia in $\frac{1}{13}$ of a grain at night and repeated; but in many instances we have found it rejected by the stomach. If we have not been successful in checking the disease, and we find that the inflammation is followed by perforation, we have then purulent otorrhœa, which, if not checked, may involve the posterior membrane, and at times the mastoid process and cells, and if there is great dizziness present the labyrinth is apt to be involved. A case of the first kind, abscess in the posterior fold or Shrapnell's membrane, of the drum-membrane, I opened an abscess this day from a neglected catarrhal inflammation with prompt relief to the tumulus. Again we have a sub-acute inflammation of the middle ear, but no perforation or severe inflammation of the posterior surface of the drum-membrane, an effusion of blood or serum takes place, which, owing to the transparency of the membrane, can be seen as a yellow reflex with a dark hair-like line. This dropsy is to be treated by the use of the inflator of Politzer, the nozzle being carefully introduced into the nose, a little water in the mouth, and with head carried forward and to one side, so as to facilitate the passage of the fluid contents into the pharynx; the patient swallows, and the air is propelled into the middle air, and if successful the bubbles of fluid can be seen behind the surface of the drum-membrane.

Some physicians resort to paracentesis, even when the Eustachian tube can be opened by the air-bag. Now, I am one of those who consider this operation a very simple one, and any physician can perform it if there is a good, large, not swollen meatus, and a speculum good light and forehead mirror; yet my experience is against its frequent performance in inflammation of the middle ear, as it often destroys the membrane entirely, or leaves a persistent and troublesome otorrhœa or chronic suppuration of the middle ear in scrofulous, tuberculous, or nervous patients.

I have also noticed bad results follow the use of local depletion in this same class of patients by leeches or cups.

But I approve of and perform paracentesis, and recommend it in healthy children and adults, when from the appearance of the membrana tympani there are sure indications the perforation is about to occur, when there is a yellowish green discoloration of the membrane with bulging forwards, with a livid red swelling and intense pain radiating all over the side of the head and face.

Dr. G. G. Davis: I am surprised that in this discussion the use of hot water has not been advocated more strongly. A quart of water allowed to run into the ear from a nasal douche will usually be sufficient. It is a plan recommended by Roosa in his treatise on diseases of the ear, and is one that I have tried with satisfaction. It is usually all that will be required for most of the milder cases and many of the severer ones. I think it should, usually, be tried before resorting to the severer procedures of leeching and puncture of the membrane.

Dr. Heyl: The reference which was made by Dr. Burnett, in the opening remarks, to a class of middle-ear affections which, though in many features suggesting acute catarrh of the tympanic cavity, are really pneumatic disturbances, is illustrated by a case which I have now under treatment. Some two weeks since I was sent for by a gentleman in the upper part of the city, with the request to bring instruments for cleansing his ear, as he was sensible of great pressure upon the drum-head, which, perhaps, might be due to wax. He gave me the following history: Several days previous to my visit, he had noticed on retiring to bed a sticking sensation in the ear, during the night this increased to a violent pain. In the morning he began to hawk and spit mucus or mucopus mixed with blood. After two or three days, on attempting to rise from bed and walk, he was obliged to vomit freely; this was apparently due to the effort of walking or maintaining the upright position. About this time I saw him. I found the pain much lessened, but a great sensation of pressure in the ear; hearing dull, noticeably so to the patient, who says that it has always been acute. Watch, $\frac{8}{36}$. Examination of the drum showed some injection along the malleus handle and membrana flaccida. Membrana tympani lustreless. Relief experienced from cautious inflation with the Politzer method. Under appropriate treatment the patient is progressing toward recovery.

Now, what was the diagnosis of this case? At first I was inclined to think it was a case of catarrhal tympanitis, and rather expected to see perforation take place with the formation of pus. But on observing the progress of the case, I came to the conclusion that the real difficulty was about the pharyngeal orifice of the tube, which so affected the muscular arrangements of the ossicles as to interfere with the normal pneumatic condition of the middle ear, which I believe depends in a measure on the proper action of these muscles—at least those connected with the palate and Eustachian tube. I may simply refer to two other symptoms which this case presented.

1. A difficulty of maintaining equilibrium; a sensation as if walking on a rocking boat, and the disposition to vomit which accompanied it. This, doubtless, was referable to the semi-circular canals, but a curious feature was that it was very much aggravated by the vibrations of the tuning fork placed on the mastoid. This effect of the tuning fork probably often occurs in middle ear troubles, although I do not remember to have it so marked as in this case. It suggests the thought of the susceptibility of the nervous connections of the semi-circular canals to sound-waves.

2. There were slight psychical symptoms in this case, such as great indisposition for work, or conversing with any one; a sense of uncertainty about the ability to perform work; a sense of mental instability. Careful observation will probably show that a very close connection exists between abnormal mental symptoms and abnormal intra-aural conditions.

Dr. Risley: I feel indebted to the lecturer for calling forth a discussion on this very practical theme. Any scheme looking toward the hardening of one's self against cold-taking should be very carefully scrutinized before its adoption. Regarding the operation for paracentesis of the drum-head, I think its importance has not been set forth with sufficient emphasis in the paper of the evening. I agree fully with Dr. Burnett in the views he has expressed regarding the rare necessity for its repetition.

In the treatment of acute catarrh of the middle ear, strict regard should be paid to the stage of the disease. At the beginning of the acute inflammation the general treatment is of great value, and he regarded tinct. of aconite, syr. of ipecac, spts. ætheris nit., etc., quite as important here as though the inflammation had attacked the mucous membranes elsewhere, *e. g.*, the bronchi. The aconite is an especially valuable adjunct to the local treatment employed.

To guard the patient from all exposure is quite as important for the successful treatment of a severe acute cararrh, involving the Eustachian tube and tympanum, as in the treatment of a bronchitis or pneumonia; confinement to bed between woolen blankets should in bad cases be rigidly insisted upon. The local treatment is of great value, but must be directed with due regard for the stage of inflammation and its severity.

In mild cases, freedom from exposure and an aconite mixture, with a little ipecac, will be quite sufficient, if the nasal passages and pharynx are kept free. If the attack is more severe, showing marked swelling of the mucuous membrane of the pharynx and nose, and is attended with pain, the efforts for relief from the intense suffering are first in demand.

One of the simplest methods for relieving the pain—one always at hand, and in his experience one of the most effective—is the application of hot water applied to the external meatus. It must, however, be *hot.* It need not be applied forcibly or in large quantities. To pour the water in from an ordinary *pipette*, the head being held well over to the opposite side, is usually quite sufficient. The temperature of the water must be kept up by frequent repetition of the process, until the pain is relieved, which very soon results if the plan is to be successful. It, however, in some instances, seemed to aggravate the suffering of the patient. If relief does not follow the thorough application of the hot water, the leeches are applied in front of the tragus, as recommended by Dr. Burnett. If the inflammatory process is not arrested, there soon follows, especially in badly nourished or feeble persons, a stopping of the middle ear with mucus and exudates, with great aggravation of the patient's suffering. It is at this stage of the disease that paracentesis is usually beneficial, and very frequently urgently demanded.

The appearance of the drum-head under these circumstances, the results of paracentesis and the usual features of this disease, I will illustrate in the case of a little girl 9 years old—at the present time under treatment, but convalescing from a violent attack of acute catarrh of the middle ear, Eustachian tube, pharynx and nasal passages. She was at the time under treatment for a subacute attack, which had caused tinnitus and some hardness of hearing. She had the day and evening before the attack gone through the excitement, fatigue, and possibly exposure, incident to a birthday party. In the night severe pain came on in the right ear, and the nose was stopped by an acute coryza. Sweet oil and laudanum were poured into the meatus, but without relief. The following day was stormy, so that she was not brought for advice until the third day, and was then found still suffering so greatly that she was crying with pain. The meatus was very tender, so that traction upon the auricle aggravated the pain. The membrane of the tympanum was a brownish red or copper color, and the superior posterior quadrant was bulging outward and downward; at the centre of this almost bagging part of the membrane was a yellowish red point. I did not hesitate to perforate the drum-head at this point, and a moment later with the air bag was able to force through the incision a few drops of a nearly chocolate-colored serum. The pain was relieved immediatcly. The meatus was greatly cleansed, a wick of borated cotton, saturated with a solution of atropia sulph., placed in contact with the drum-head, and allowed to remain, the pharynx and nasal passages washed with a weak solution of sulphate of zinc, and the child sent home, with instruction that she be placed in bed and the aconite mixture given if she should be feverish in the evening.

The following day she was seen at her home; there had been no return of the pain; in forty-eight hours the wound in the tympanum was closed, and at the end of a week she was quite recovered, even of the subacute catarrh, for which she had been under treatment before the violent onset of the acute inflammation.

A thorough and careful attention to the coryza, which very usually precedes these inflammations of the middle ear, would prevent their occurrence in most cases.

Dr. F. J. Buck: I have often relieved severe earache almost instantly by placing some loose cotton in the bowl of a pipe; then moisten the cotton with sulphuric ether and blow the vapor into the ear through the pipe-stem.

Dr. Wm. T. Taylor: To relieve the ear-ache of children, I have used chloroform in a similar manner to that described by Dr. Buck.

Dr. Wm. S. Little: It would be difficult to lay down any rule that would apply to all cases in the process of hardening the system so as to prevent catching cold. The sensibility of the skin varies so in individual cases, the effect of heat and cold, the action of irritants upon the skin producing different results in individual cases; the Turkish and Russian bath not being allowable in many cases.

The hardening of the system by exposure has been advocated by non-medical men, who have been close students of nature, but the *genus homo* does not thrive as other *genera* do in undergoing the process.

The treatment of ear affection following catching cold is often rendered more easy; in addition to the methods already discussed by the author of the paper, and gentlemen following in the discussion, by inhaling medicated vapors; compound tincture of benzoin in boiling water being a very agreeable and soothing medication.

The inhalation of burnt brown sugar is a very homely but a very valuable method, several cases of severe catarrhal conditions of the throat and ear being cured by persons who had resorted to various plans of medication prior to their working in the refinery room of a sugar factory.

How to Secure Good Dental Organs, Prevent their Decay, Prevent Rickets, Hip Diseases, Etc.

BY H. E. BENNETT, D. D., SOUTH BOSTON, MASS.

In the discharge of their duties, the physician and dentist are daily asked by their patients, "What must I do to prevent my teeth from decaying?" The answer should be, "Correct your food,"—that is, eat such food and only such as contains all of its natural elements. If we eat the products of grain we must eat them with all their elements as furnished by nature. If we eat meat, we must also eat bones, or our systems will suffer from a violation of one of nature's most unerring laws. It is conceded that dental decay is the dissolving away of the lime salts by vitiated secretions. This is not due so much to a want of cleanliness of the mouth, as is commonly supposed; for it is not true that "A clean tooth never decays." One may devote twelve hours out of the twenty-four to the ablution of the mouth and fail to prevent decay of the teeth so long as nature's dietic laws are violated.

Dental development in man is discernible as early as the seventh week of intra-uterine life, hence the importance of a strictly correct diet from the start, if mothers wish to give birth to children who may have perfectly formed teeth; and perfect health includes a perfect set of teeth, for they are little indicators denoting by their condition that of the whole system, just as a thermometer indicates thermal changes. A mother who passes through the periods of gestation and lactation without a sufficient supply of bone and tooth material in her food will suffer from loss of teeth, neuralgia, rheumatism and other diseases that result from an impoverished state of the system.

The lime from her teeth will be dissolved, taken into the circulation and appropriated by the offspring. Excepting civilized man, all flesh-eating animals eat as much of the bone with the flesh they devour as they can break with their teeth sufficiently fine to swallow. Place before a tribe of Indians everything the earth produces in the shape of food, and they will eat only animal food as long as that lasts; but put them upon a reservation and feed them as civilized people feed themselves, and decay of the teeth soon follows. Take from any carniverous animals their supply of bone, which nature furnishes with the flesh, and decay of the teeth is sure to follow. Several years ago the lions in the Zöological Gardens of London were fed upon the thighs of horses; these being large and hard they were unable to break and eat, and as a consequence their young were born with cleft palates and died shortly after birth. They were afterwards fed upon deer and other small animals and their young were born with perfectly formed palates and lived.

Veterinary surgeons have long known that certain diseases of their dumb patients can only be successfully treated by feeding them with bone meal. A dam, too aristocratic to gnaw bones, gave birth to successive litters of rickety pups; after being fed with food containing bone meal, she produced perfectly healthy ones by the same sire. Even our domestic herbivorous animals thrive better when bone is added to their bill of fare. The cow which every year gives birth to young suffers from an excessive drain upon her supply of bone material and craves bones to such an extent that she will try to masticate even very large ones, as every farmer's boy can testify. Arguments in favor of eating bone to prevent decay of teeth as well as to cure a long catalogue of bone and kindred diseases might be continued indefinitely, but as "A word to the wise is sufficient," it seems only necessary to add that a long and continued experiment has been made upon a family with results that fully justify all claims made for it. The bones were selected from perfectly healthy animals, none being used that bore the slightest blemish, carefully cured without being allowed to pass through any perceptible chemical changes, finely granulated and incorporated into soup, gravy, bread, etc., in the proportion of from one to three spoonfuls to each pint of soup, gravy or flour.

The relative proportions of nutritive elements in one hundred parts of different kinds of animal food are as follows:

Beef, 26; mutton, 29; chicken, 27; pork, 24; brain, 20; blood, 21; codfish, 21; white of egg, 14; milk, 7; bone, 51.

Two Cases of Intestinal Obstruction: One from Impacted Fæces; The Other by Structure Due to Cancer, with Specimen.

BY DR. GEORGE W. VOGLER.

Reported for the CINCINNATI MEDICAL NEWS.
Read before the Philadelphia County Medical Society, June 18, 1884.

MODERN writers usually enumerate the causes of intestinal obstruction as follows:—1. Congenital malformation. 2. Internal strangulation. 3. Intussusception or Invagination. 4. Constriction. 5. Compression. 6. Impaction of foreign bodies or intestinal concretions. 7. Impaction of fecal masses.

Upon looking through the statistics of intestinal obstructive diseases, certain striking facts are noticeable. It is difficult to estimate the comparative frequency of intestinal obstruction. It is by no means a very common affection, always dangerous, and in a very large proportion of cases resulting fatally. Statistics show that most forms of obstruction of the bowels are more often met with in the male than in the female subject, the exceptions being obstruction by gallstone or fecal matter; constrictions by peritoneal or other adhesions, and compression of the intestine by tumors or displaced viscera.

As regards age and the portion of the intestine involved:

Obstruction by gallstones always occurs late in life, and involves the jejunum and ileum. Intussusception may occur at all ages, especially during childhood, and is confined chiefly to the large intestine.

Stricture is a disease of adult life (of course always omitting congenital malformation), involving the large intestine; three-fourths of the total number being below the middle of the transverse colon.

With these few introductory remarks I will proceed at once to the reading of the notes of a case of intestinal obstruction by constriction due to cancer:—

Mrs. Mary Müller, German, aged 58 years, widow, was admitted April 18th, into the ward of my friend and colleague, Dr. Adam Trau, at the German Hospital.

For some six months previous to her admission she had been under almost constant treatment by physicians. She states that constipation was her chief symptom, for which all kinds of purgative remedies and various procedures were used, with but little avail.

She was anæmic, considerably emaciated, and very weak. Chief symptoms were obstinate constipation, great tympanitis, severe pain, and almost incessant vomiting. Temperature and pulse not much disturbed.

A careful physical exploration of the abdomen, vagina and rectum, elicited no sign of a tumor.

A long œsophageal tube was readily passed into the bowel, even to the length of twenty-seven (27) inches, according to the statement of the medical resident.

In brief, it seemed that the case was one of a paresis of intestinal movement, due to some defect either in the intrinsic ganglia and nerves of the muscular intestinal coat, or through imperfection of the muscular tissue by degeneration; or, both these causes combined.

The treatment consisted in the use of purgative remedies, large watery and stimulating enemata, with comparatively no results; turpentine stupes, followed by hot flaxseed poultices gave some ease. The introduction of a long œsophageal tube into the bowel and massage of the abdomen afforded much relief. So great was the tympanitis shortly before her death that respiration was materially interfered with, necessitating the introduction of a small aspirating needle to afford temporary relief.

She was fed by pancreatized milk per bowel, and Cibil's beef extract and stimulants by mouth.

Death occurred April 29th, by asthenia.

Owing to the interest taken in the case during life, the following gentlemen were present at the post-mortem examination, by invitation of Dr. Trau: Drs. Formad, Dercum,

F. H. Gross, Barton, Jones, Vogler, and the residents, Weed, Stabler and Rehfuss.

Body emaciated and abdomen greatly distended, the intestinal convolutions plainly mapped out upon the abdominal wall. The distension of the intestines, particularly the colon, was simply enormous. Some adhesions noted. At the lower part of the descending colon, a constriction was seen. This part of the intestine was carefully removed, and when subjected to the hydrostatic test, was found to be impervious to a downward current, but readily permitted the passage of an upward current. On opening the specimen along the line of the mesenteric attachment, a valve-like scirrhous tumor was exposed, which readily accounted for the phenomena observed in life, viz.:—1. Ready introduction of fluids into the bowel by a fountain syringe, also a rectal tube. 2. Failure of the fluid to be voided after withdrawal of the tube. 3. An almost total absence of the natural passages from the bowel.

The specimen which I now pass around is well worth a careful inspection, the lesion consisting of two valve-like scirrhous masses completely encircling the bowel, to which it is alone confined.

The other case of intestinal obstruction was due to impacted fæces:

Mrs. F., aged 64, private patient, afflicted for many years with habitual constipation, frequently going many days without an evacuation, commenced complaining some three weeks previous to my visit, with severe pain in the left lumbar and umbilical regions, and an impossibility to relieve the bowels by powerful purgatives.

No other sympton of note troubled her up to within a few days, but now she was suffering with some fever, pain, nausea, exhaustion, and was passing some bloody mucus from the bowels.

Careful examination of abdomen and vagina, revealed a large, hard and irregular-shaped body or tumor, situated in the left lumbar region, painful to the touch, slightly movable, and entirely free from womb and its appendages.

The diagnosis was determined by the history, the absence of acute symptoms, physical examination, and by the process of exclusion of other causes of obstruction. By this time her life was in great danger.

The treatment consisted chiefly in the frequent use of large enemata of soap-water, castor oil, turpentine and laudanum.

Small doses of calomel and ipecac were given by mouth. After two or three days, some small and hard pieces of fecal matter were passed for the first time, and a careful examination indicated the mass to have broken in two, one occupying the old position; the other, the sigmoid flexure. She was vomiting at this time.

The quantity of fecal matter that came away during the following week was enormous. At one sitting, as many as twenty-seven large pieces of hard, dry fecal matter came away, and I give this merely as an illustration of the quantity passed at one time. Frequently it became necessary to unload the rectum by digging out the masses.

At times bloody mucus came away.

Of course, pain was very great during these operations, and opium had to be resorted to.

Gradually the swellings began to grow less, and finally disappeared. The patient was able to trace their slow movements along the intestines by the intense pain.

Only after weeks of careful treatment did this patient fully recover her health, and, strange to say, with a radical cure of her habitual and long standing constipation.

Selections.

Moral (Affective) Insanity—Pyscho-Sensory Insanity.

BY C. H. HUGHES, M. D., ST. LOUIS.
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Reprint from *The Alienist and Neurologist*, April, 1884.

(Continued from last Number.)

Before the time of Pinel or Prichard, morbid changes in the appetites, propensities and feelings were recognized by medical nosologists. The *morosities* or *morbi pathetici* of the older nosologists embraced them. A little later, Rush, in this country, also described some of them.

Since Prichard wrote his essay on moral insanity many terms have been invented to designate varieties of effective aberration, thus contracting the morbid area over which he extended the term in his discussion of his subject.

In the discussion of his subject he refers to some that already existed, as certain forms of melancholia, satyriasis and nymphomania, nostalgia and erotomania, characterizing the two later as disorders of sentiment. The *folie raisonnante*, or reasoning mania of Pinel, he also referred to, and justly included under the term moral insanity.

We now have varieties of moral insanity designated as emotional insanities, and the various destructive manias, which are characterized by impulse rather than delusion, as the homicidal, suicidal, kleptomaniacal and pyromanical impulses, so-called, which, when delusion is not prominently present really belong, like some varieties of lypemania, to the class of effective aberrations, as some forms of melancholia without delusion do. Some varieties of *primœre Ver-ruecktheit* or congenital moral aberration, might likewise be classed where Prichard placed them, among the moral insanities. Some of the limited or monomanias belong today where Prichard placed them, notably some of the recorded instances of motiveless morbid impulse to destroy and steal, and to do other acts at variance with the unprovoked natural impulses of the human mind, though the majority of the monomanias or limited maniacal displays, undoubtedly have delusion associated with them after they have reached that stage when we are willing to recognize them as insanities.

From the foregoing and other considerations well known to observant alienists, it is obvious that the term moral insanity is no longer so essential to designate certain forms of real affective aberration, for which there was once no other satisfactory name, except that of reasoning mania, and through usage of the best and most observant writers, even of those who recognize this form of insanity, as they of necessity must, because, since it is founded in the clinical fact, they have not failed to see it, the term has become somewhat more restrictive than formerly. Some have sought, and now attempt, to erase it altegether, and in seeking to do this, think they may expunge the disease from the imperishable records of the clinical psychiatry. But this is impossible. It matters not materially what becomes of the name. It may ultimately become politic to abandon it, though time is not yet for such abandonment. Yet the clinical fact will remain. Its indubitable features, under any and every christening, will be plainly recognized by the true clinician in psychiatry; and they should be, for the welfare of the most pitiable, but often least commiserated, because less understood of all the pitiable victims of mental disease, may depend upon their being recognized.

As the practical student of mental disease in all forms of manifestation, asks, "What is the form and meaning of this term moral insanity?" he is compelled interrogatively to answer as one of the earlier of Prichard's English critics did, by asking, "What insanity is not moral?" and if the earliest indications of approaching insanity are moral, as pointed out by Mayo, in his "Elements of the Pathology of the Human Mind," where is the logic in denying the possibility of its existence without the co-existence of appreciable intellectual aberration? Its existence is confessedly recognized and conceded as the earliest indication of approaching insanity, but although the person be morbidly deranged in his moral faculties, the insanity must not be conceded till the theoretical perceptible lesion of the reason appears! How unreasonable! How inconsistent! How unscientific! How unmedical! How absurd not to recognize mental disease which is confessedly apparent, until certain other symptoms appear, which shall bring the disease within the pale of preconceived and ideal boundaries, on the line of which we have written or rather have permitted the law to write its criterion of responsibility! Reason and observation unite to impel the recognition of this plain clinical fact in psychiatry, while prejudice and polity, or the erroneous association of immorality as its invariable accompaniment and characteristic, are permitted to obscure perceptions of plain medical truth.

If co-existent epilepsia, delusion of congenital imbecility can be proven some will concede the existence of moral derangement, and name it something else. If they do not find these or other morbid conditions affecting the intellect they explain it away by suggestions of "innate viciousness," "defective education," or even "hysteria," though the latter is sometimes one of the gravest of neurotic disorders and an important link, often, in the chain of neuropathic descent, and a precursory condition of unmistakable delusional aberration.

Why make the recognition of one form of mental disease depend upon the co-existence of another? This is not the rule in the diagnosis of mental maladies. To do this is to confess ourselves handicapped by an unwarranted skepticism in regard to the existence of this disease which we do not permit to embarrass us in the study of any other.

Moral insanity presents two plainly recognized clinical aspects.

1. Those cases in which there is neither a perceptible hallucination, illusion or delusion of the special senses; and

2. Those in which delusions exist, but constitute a secondary and minor feature of the *tout ensemble* of morbid phenomena.

It is not denied that imperative conceptions of morbid impulses exist in many of the morally aberrated. They are indeed quite characteristic of this form of mental disease. Nor is it denied that delusive feelings as contra-distinguished from delusions associated with special sense perceptions, and what Mayo called notional delusions, that the foundations of the subsequently-developed delusions of the morally aberrated are laid, which often appear as these cases progress toward universally recognized intellectual aberration, and the natural termination of progressive insanity in dementia.

Having cleared away the mists of obscurity from Prichard's definition by letting him describe, instead of others for him, the types of mental disease which he meant to include under his definition, it now only remains for us to narrate some of our confirmatory cases.

Preliminary to their introduction it will not be amiss to select a few cases from Mayo, which, while they serve to prove at least the possible existence of moral insanity, also answer to establish the mental bias of one of Prichard's most vigorous critics, whose analysis of Prichard's cases has repeatedly been imitated but never surpassed, and whose power of analysis was only equaled by his unconscious prejudices.

SOME OF MAYO'S CASES IN ILLUSTRATION OF HIS OBJECTION TO MORAL INSANITY.

CASE I.—"The Honorable Mr. Tuchet, put to death by a pistol-shot; the marker of a shooting-gallery. The act was sudden, and there was no apparent motive; but it was not performed under any semblance of delirium. Mr. Tuchet was eccentric, and he was *blase*. He fancied that he desired to be hanged; at the gallows he would probably have thought differently; and he was reckless and brutal enough to give himself a chance of his fate at the expense of the life of a fellow creature. I have noticed him since in the criminal department of Bedlam, *insouciant* and indifferent enough, but certainly not insane in any sense of the word that would not entirely disintegrate its meaning."

CASE II.—"A nursery maid, placed in Bethlehem Hospital, 1846. A trifling disappointment relative to an article of dress had produced in her a wayward state of mind. She labored at the time under diminished catamenia. An object to which she was generally much attached came in her way, namely, the infant whom she nursed; and she destroyed it, as a fanciful child breaks, in its moodiness, a favorite doll. No fact more nearly approaching to delirium than the above was stated in exculpation or excuse at the trial. But Dr. Prichard's work on "The Different Forms of Insanity, in Relation to Jurisprudence," was published in 1842; and, by 1846, juries had learned to convert the uncontroled influences of temper into what he terms Instinctive Insanity. As an instance of this class of cases, in which the judicial authorities came rightly to a very different conclusion, I will quote to you the following one from Sir Woodbine Parish's last work on Beunos Ayres. Having spoken of a certain wind occasional in that climate, which in some persons produced peculiar irritability and ill-humor, almost amounting to a disorder of their moral faculties, he proceeds as follows:

CASE III.—"Some years ago, Juan Antonio Garcia, aged between thirty-five and forty, was executed for murder at Buenos Ayres. He was a person of some education, and rather remarkable for civility and amenity of his manners; his countenance open, his disposition generous. When this *viento norte*—this peculiar north-wind—set in, he appeared to lose all command over himself; and such became his irritability, that during its continuance he was engaged in continual quarrels and acts of violence. Before his execution, he admitted that it was the third man he had killed, besides being engaged in various fights with knives. When he arose from bed in the morning, he told Sir Woodbine's informant, he was 'always aware at once of its accursed influence upon him; a dull headache first, then a feeling of impatience at everything about him. If he went abroad, his headache generally became worse; a heavy weight seemed to hang over his temples. He saw objects, as it were, through a cloud, and was hardly conscious where he went. He was fond of play; and if, in such a mood, a gambling-house was in his way, he seldom resisted the temptation. Once there, a turn of ill-luck would so irritate him, that he would probably insult some one of the by-standers; if he met any one disposed to resent his abuse, they seldom parted without bloodshed.' The relations of Garcia corroborated this account, and added, that no sooner had the cause of the excitement passed away, than he would deplore and endeavor to repair the effects of his infirmity. 'The medical man,' says Sir Woodbine, 'who gave me this account, attended him in his last moments, and expressed great anxiety to save his life, under the impression that he was hardly to be accounted a reasonable being.' 'But,' he adds, 'to have admitted that plea would have led to the necessity of confining half the population of the city when this wind sets in.' I quite agree with the conclusion which this remark implies, as to the fate of Garcia, says Mayo. He was himself aware of the murderous instinct to which he was liable, and of its exciting causes. Surely, when such knowledge is in the possession of the delinquent, he must be made responsible for the non-avoidance of exciting causes."

CASE IV.—"M. Georget gives a case, which may be usefully contrasted with the above as to its claims on the plea of insanity. Hypolite Mendic, a non-commissioned officer in the French service, had gradually become morose, capricious and brutal in his conduct, so as to excite the disgust of all his companions. This ends in disobedience of orders, and such violence toward his commanding officer as to render him liable, on trial, to the sentence of death. The trial proceeds, with the customary anxiety of the medical witnesses to make out plea of insanity; and the tendency of the court, observable indeed in all M. Georget's reports, to give the criminal the benefit of the most careful inquiry into extenuating circumstances, and at the same time to protect the public against the plea when overstrained. The symptoms of this case wanted the acuteness of character which alone tended to palliate the crimes of Garcia; but, in the course of Mendic's trial, one weighty fact was made out—namely, that before his outbreaks he was subject to an epileptiform seizure, out of which he emerged into the wayward state above noticed. This might fairly justify an hypothesis of delirium, as present at these paroxysms. If judgment was overpowered in Garcia, it was suspended in Mendic.

Mayo concludes case four with the following reflection, which indicates how questions of consciousness and responsibility constitute with him pre-established criteria of mental aberration, whereas it is the duty of the physician to determine first the question of mental disease, and after that the degree of consiousness and of responsibility associated with or dependent upon it. "There are shades of distinction in the amount of man's presumed responsibility to society, which should be indicated by corresponding shades of punishment when offenses come; but, in all cases, consciousness is presupposed as a condition of responsibleness; so that a disease affecting consciousness renders the agent, so far forth, unfit in kind as well as in degree, to become an object of punishment." Certain phases of irresponsible insanity undoubtedly exist in association with consciousness, while unconscious automatism may be self-induced by certain persons neuropathically endowed, while in a state of responsible sanity. But the degree of insanity should determine the responsibility, not the degree of responsibility the question of insanity,

CASE I, He characterized as simply one of brutal recklessness, because the act was not performed under any semblance of delirium, though it was "sudden and without apparent motive," and the perpetrator was remorseless, perfectly indifferent to the crime of having killed without motive or provocation, an inoffending person who had done him no harm, and was "eccentric and *blase*." Brutal recklessness explains to the mind of Mayo all of the conduct of this man, who, "without the semblance of delirium," "fancied that he desired to be hanged." The crown thought otherwise, and confined him in Bedlam.

CASE II, He regarded as one of hysteria or temper, as if there could be no insanity in hysteria or temper displayed in killing an infant to whom one is so much attached, and because of a trifling disappointment which the infant could have had no hand in causing. This was a natural and rational act, as natural as for a "fanciful child to break, in its moodiness, a favorite doll!"

CASE III, He would have conceded to have been one of insanity, "*but to have admitted that plea would have led to the necessity* of confining half the *population of the city when the wind set in.*"

CASE IV.—"One weighty fact was made out, namely, that before his outbreak he was subject to an epileptiform seizure, out of which he emerged into the wayward state above noticed. This might fairly justify *an hypothesis* of delirium as present at those paroxysms," says Mayo. Saving clause!

Thus have all subsequent objectors to moral insanity blindly reasoned under the unconscious bias of previous hypothesis or the impolicy of its recognition, even those who have not mistakenly regarded moral insanity as invariably a form of very immoral insanity, or who do not demand that before insanity shall be recognized it shall appear in its unconscious forms. If the hypothesis of delirium can be sustained the insanity will be conceded, but why not recognize the insanity without the hypothesis?

Consciously or unconsciously, they reason it is not wise to recognize forms of insanity in which there appears a degree of responsibility; hence such insanity must not be accepted as an observed fact in science.

But what has the question of responsibility to do with a question of disease? and what if science should find a form of mental disease in which responsibility does really exist?

The fear of the church once deterred men from uttering the convictions of scientific discovery. Now it is the fear of public policy.

In the present day, as in the past, society has nothing to fear from the honest discriminating disclosures of true science. Society will remain as secure from the encroachments of crime with moral insanity boldly proclaimed as distinct from voluntary viciousness, as the church is unharmed by the universal acceptance of the doctrine of the rotation of the earth upon its axis. The foundations of the teachings of Pinel and Prichard are as securely laid in mental pathology as those of Galileo are in the laws of astronomy, and they will become as universal. Possibly this disease may bear some other name, but the morbid mental condition of moral insanity is a basis fact in psychiatric symptomatology which can not be reasoned away.

Delusion is comparatively exceptional, while perverted feeling is never absent in mental disease. Some of the features of moral insanity are psychically typical of all insanity with intellectual derangement. Why then seek to exclude moral insanity from recognition because intellectual derangement is not apparent, but if present, only inferentially so in certain cases? As well might those who believe in the existence of moral insanity deny the reality of delusional insanity where derangement of the effective character might not be discernible to confirm the delusion. But psychiatric science gives us no warrant for thus seeking to reason out of existence any of her facts. On the contrary, she shows by clinical confirmations unmistakable to the faithful student of mental pathology who does not suffer his perceptions to be blinded to the truth by theoretical preconception and misconception of the improbable and unproveable invariable unity and harmony of the mental operations under all circumstances of health and disease of mind, how psycho-sensory or preconceptional mental aberration may precede or co-exist with psycho-reflective or conceptional insanity.

She not only shows the reason to be primarily or chiefly touched by disease, but "the wishes, inclinations, attachments, likings and dislikings" morbidly changed, "*and this change appears to be the originating cause or to lie at the foundation of any disturbance which the understanding itself may seem to have sustained, and even in some instances to form throughout the sole manifestation of the disease.*"*

Let us, then, like the true artist, study and copy, not ideally fashion nature. Fancy pictures of imaginary sanity are the more fatally misleading when skillfully painted by the hand of a master in psychiatry, and have sent many an undeserving lunatic to the stake and the gallows. Victims enough have thus been executed to counterbalance, in all probability, the blunders of ignorance in finding insanity where none existed.

The ignorant populace may applaud when they are misled by inconsiderate or designing pseudo-scientists, as they approve the counterfeit resemblances of spurious art; but if we would have our pictures of mental disease endure the test of time and our names as discriminating observers survive with them, its every phase must be faithfully painted, regardless of any theoretical notions we may entertain of the supposed nature of the mind or the imaginary demands of public interests or policy, with strict fidelity to nature. It is no part of the physician's province to adjust the phenomena of mental disease before admitting its existence to the supposed exigencies of society or state polity. No question of expediency should be permitted to obscure even the faintest feature of real disease presented to the mind of the physician, notwithstanding such questions may totally eclipse the judicial vision whenever directed to certain (to them, inexplicable and dangerous) phases of mental aberration. The true physician will diagnose real disease in whatever form it may be presented, regardless of such irrelevant considerations.

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*Prichard on Insanity, p. 15, Bell's Library, Philadelphia; Edition, 1837.

Excision of a Portion of Intestine, including Ileo-Cæcal Valve, for Fæcal Fistula.

Dr. C. B. Porter describes this case in the Boston *Med. and Surg. Jour.*, May 15, 1884:

The condition was this: Two fæcal fistula in right groin, one about one and a half inches from spine of pubes, and the other about three inches further outside; each about one inch above Poupart's ligament. A bougie was passed into one of the fistulous openings (the one highest up in the groin), emerging from the other opening three inches lower down. This was then cut down upon, the tissues consisting of hard cicatricial masses, and the entire cavity laid open. This cut divided the lower margin of the abdominal ring, and laid open the hernial sac; the incision was then prolonged downwards to expose the whole sac, making a wound through the skin of the abdominal wall four inches long. Two openings into the intestine were found, about one inch apart. These were connected by a cut made on the director, dividing the superficial epigastric artery, which was first tied with a double ligature. The opening in the intestine was then seen to be in the ileum and cæcum, just at their union. The finger passed readily into the large intestine, but the attempt to introduce it into the small intestine through the ileo-cæcal valve was impossible, as the cicatricial contraction involved the valve itself, and the opening was not larger than a small lead pencil. The dilator was introduced and this opening stretched, then with the forefinger of the left hand introduced into the opening, a dissection was made to release the intestine from its cicatricial attachments to the abdominal wall, necessitating a section of the muscles from the external abdominal ring outwards for about four inches. This done, the intestine was free from all but its mesenteric attachments. To close up the wound in the intestine, the expediency of cutting out a complete section of the intestine was considered, but was not thought wise, as it would involve removing the vermiform appendix and portions of cæcum and ileum. The cicatricial margin of the opening was trimmed off. The opening then involved about four-fifths of the caliber of the bowel. The edges of this wound were then approximated, but as one side was small and the other large intestine, the edges would not lie together smoothly. To obviate this difficulty a longitudinal cut was made in the small intestine, thus giving a longer edge of cut surface, and forming a sort of oval-shaped wound, which could be approximated accurately to the cut edge of the large intestine. The wound was then sewed up with silk sutures as follows: The needle was entered about one-half inch from the wound, penetrating the peritoneal layer, then traversing the middle layer (muscular) of the gut, and emerging one-eighth inch from the margin of the wound, having left the mucous layer untouched. The needle was then entered at the opposite side of the wound, in a corresponding manner traversing the middle layer, and emerging about one-half inch from the wound. Ten sutures were introduced in this way. When these were drawn tight they rolled in the free margin of the wound, thus bringing two serous surfaces in contact, and turning the cut edge into the interior of the bowel. The intestine was then allowed to fall back in the abdominal cavity, after additional silk sutures had been placed between the previous ones, making twenty in all.

The ring and abdominal opening were then brought together and sewed with fine silver wire, the sutures passing through the peritoneum and fascia of the deeper muscles, but not the skin. The ends were cut short and the points bent over. Five sutures were thus placed. The skin was then united by silk sutures, a large-sized drainage tube, three inches long, being inserted into the abdominal cavity.

A graduated compress of carbolic gauze was then placed over the wound, and a full Lister dressing surrounding the abdomen and thigh, the whole being confined by a spica bandage, firmly sewed together. The whole operation was done under carbolic spray and all antiseptic precautions, occupying in all two hours and three-quarters. There was but very little hemorrhage, the vessels of the skin being tied before the abdomen was opened. There was no escape of fæcal matter at any time. The tract of the small sinus first opened was thoroughly curetted before any other cut was made.

The condition of the patient was excellent throughout, the pulse being full and moderate. About one and one-half pints of ether were used. Recovery ensued.

Comedones in Children.

In the *Lancet*, April 15, 1884, Dr. H. Radcliffe Crocker says that the following cases illustrate a condition which is not generally recognized as a disease of childhood, the text-books only describing comedones as they occur at puberty and onwards, from which this affection differs in several particulars. I will first relate some cases, and then briefly comment on them. All the cases occurred at the East London Hospital for Children:

George W——, aged three years and a half, came to the hospital in June, 1882, for whooping-cough and an eruption which had existed for three months. It consisted of innumerable black pin's-head-sized papules, with no inflammation around them, which were evidently comedones, and could be squeezed out, but with more difficulty than the ordinary kind, and the necessary pressure was very liable to set up inflammation in their sites, but they did not often inflame spontaneously; the expressed material was firmer and tougher than usual, and microscopically consisted of epithelium, with comparatively little fat. The comedones were massed together on the upper part of the forehead, especially on the right side, extending for an inch and a half into the hairy scalp; there were several patches in the occipital region, and a few on the right parietal. They were mainly in groups, but on the forehead were so closely set as to give it a very dirty, almost black, appearance. The following cases were in infants: Henry A——, aged twelve months; when he was nine months old groups of closely set comedones appeared on each cheek; there were less defined groups under the chin and angle of the jaw. The child was marasmic and pale. A. M——, aged fourteen months; comedones appeared when he was eight months old, symmetrically grouped on the prominent part of each cheek. The child was brought for rickets.

These are only samples of over a dozen cases that I have seen in my own practice and that of others, so that the condition is probably not a very rare one. The majority were in boys between three and twelve years old; and in addition to the regions mentioned, it was observed extending from the scalp to the eyebrows, in the sulcus behind the lower jaw, on the shoulder, and in girls limited to the temporal regions. In most cases the capsules ceased rather abruptly, and when not too closely set the tendency to group was generally evident. The etiology of this condition is evidently different from that after puberty. The position in most of the boys corresponded with the part where their caps were in closest contact with the skin, naturally suggesting that they had some causative connection; and, on comparison with the cases where other regions were affected, the common factor was found to be warmth and moisture. This was confirmed by a recent case of a girl of three years old with laryngeal obstruction, probably diphtheritic, where after repeated linseed poultices she presented, when I saw her, scattered comedones, mingled with acne papules and pustules, all over the back and the lower part of the chest. This, however, does not cover the whole matter. A short time ago my colleague, Dr. Warner, kindly sent me a brother and sister, the boy with the forehead and scalp affected, the girl with the temples alone involved; further, it was stated that another brother had it in a minor degree, and that there were several boys at the school similarly affected. This is not the only instance I have known of more than one member of a family being affected, and suggests the possibility of some contagious element, probably bacterial, though I have not found any such organism as yet. Possibly other irritants may produce the condition, though doubtless some predisposition is necessary. Comedones in children differ from those of adults in their being mainly dependent on local causes, on their greater tendency to group, and to be more closely set, in their involving the hairy scalp, and, finally, to their being generally readily amenable to treatment, all that is usually required being friction with a weak soft soap and spirit liniment; or a weak sulphur application may be employed in mild cases, preceded by fomentation with very hot water.

Hæmorrhage After Abortion.

Why should there be bleeding after a criminal abortion and not after a natural one? This may be illustrated by fruit growing on a tree. When the fruit is mature, it drops off from a slight shake, and no injury is done either to the tree or to the fruit. But, if you pluck the fruit while it is immature, you will probably break the twig from which it grows. Again, and this illustration is a happier one, if the fruit is blighted from any cause, it will drop off readily without any injury to the tree. So, when a woman has a natural miscarriage, it is analogous to the falling off of the blighted fruit. The ovum is dislodged from its attachments, usually by the escape of blood behind it, and is thrown off as a whole, viz: the sac, with a little fœtus inside; no membranes are left behind, and no injury happens to the womb. But when, by criminal means, miscarriage is induced, it is like plucking the fruit while it still has sap-communication with the tree, and mischief results. The method most frequently employed to induce abortion is by puncturing the membranes. When this is done, the waters and embryo escape, but the adherent membranes remain behind. The secundines may remain after a natural abortion, but this is not the rule. In this woman the bleeding continued for four months, showing that the membranes remained attached to the womb, and acted like a polypus. This loss of blood was sufficient to produce a condition of anæmia. Menstruation then ceased. She has now partial amenorrhœa. She has been treated in the dispensary, and has been much benefited. Before coming to the hospital the menses were very irregular. This is the history that often follows serious hæmorrhage at confinement. There is a strange peculiarity connected with loss of blood. It is frequently observed that where a person is losing blood in driblets she will grow fat. This fact is taken advantage of in æsthetic countries by butchers, who bleed the calves in order to have white and, at the same time, fat meat.

In the treatment of these cases we give iron in large doses. We also give cinnamon, which causes a flow of blood to the womb. The uterus should be irritated by making applications to the fundus. The diet should be good, the digestive apparatus should be kept in order, and the bowels regulated. When the woman has grown fat from the loss of blood, it is not easy to restore the menses.

I have often seen women from thirty to thirty-five years old begin to grow fat, and soon the menses would cease. These women are frequently excessively anxious to have children. There is nothing more difficult than to establish menstruation in such patients. I have tried all forms of treatment. I have used the galvanic stem pessary, in some instances with success, and in other instances with failure.

I explain this condition in the following manner: At the change of life there is atrophy of the reproductive apparatus, and especially of the ovaries. At that time women, as a rule, either grow stout or else they grow thin. Now, although I have no post-mortem results to offer in support of my opinion, I believe that in women of the age I mentioned, and who cease to menstruate, there is atrophy of the ovarian structures. Such a supposition readily explains the reason why it is so difficult to establish the flow in these women.—*New York Med. Jour.*

The Combined Method of Turning in Placenta Prævia.

Dr. C. Behm refers to the method which was described by Braxton Hicks in 1861, and to the literature of the subject, in addition to giving a somewhat extended notice of his own experience, involving fifty-three cases with this complication, in the clinic of Prof. Gusserow, at Berlin. These cases are divided into two series, the first numbering thirteen, the second forty. Those in the first series were treated by the old method of version; thirty of those in the second by the combined method; the remaining ten required other procedures. The thirteen mothers gave birth to fourteen children, and the mortality was four for the mothers and ten for the children. As to the insertion of the placenta, in three cases it was marginal, in five lateral, and in five total or central. Of the forty cases in the second series, there were no deaths on the part of the mothers, but eight were the subjects of fever, and one suffered with hæmorrhage on the seventh day of the puerperium. Of the forty children, nine were born alive, five of whom were mature, two premature, and two with vital defects. Of the thirty-one dead children, six were mature, eleven were premature, and fourteen had vital defects. Notwithstanding the small percentage of survivals on the part of the children, the author considers the results excellent, and would so consider them even had all the children been lost, when the peculiar conditions attending this complication are born in mind.

The advantages of the combined method of turning are summed up in the avoidance of sepsis, which it insures, and also the limitation of the loss of blood, by means of the tamponade which is effected by the breech of the child. Turning having been accomplished, the author differs with Spiegelberg, Fritsch, and others, in their view that extraction should be as rapid as possible. In twenty-four of his cases in which he noted the interval between turning and extraction it varied between one-half hour and eleven hours, birth taking place in the largest number between two hours and two hours and a half after turning. In the interval the strength of the patient should be re-enforced, and stimulants are regarded with more favor for this purpose than any method of transfusion. As a means of preventing atonic post-partum hæmorrhages, this method of turning has answered perfectly in the author's experience, and no accidents of this nature occurred to him. The aphorism which he proposes for the treatment of placenta prævia cases is *haste, with delay*—haste in performing combined turning, delay in extraction.—*New York Med. Jour.*

The Application of the Forceps to the Breech.

Truzzi relates his experience in this method of using the forceps, a method which has been proscribed by most obstetricians in a series of fourteen experiments upon the cadaver. The conclusions are as follows: 1. In a case in which the buttocks are wedged in a superior or middle portion of the pelvis, and the indication is for rapid extraction, the application of the forceps is preferable to traction in the groin with the finger, crotchet or fillet, an operation which is likely to be attended with fracture of the femur or laceration in the soft parts of Scarpa's triangle. 2. Ollivier's proposal to apply the forceps upon the thighs, and not upon the pelvis of the fœtus, is plausible in theory, but not warrantable in practice. If his directions were carried out, the abdominal walls, and especially the region of the liver, might be compressed in a dangerous manner. 3. The application of the forceps upon the sides of the fœtal pelvis is easier, more certain, and less perilous than Ollivier's method. The soft tissues which cover the iliac bones form a suitable protection for them, and an unusual compressive force would be requisite to injure the bony structure. In all the author's experiments there was neither fracture of the iliac bones nor injury to the sacro-iliac or pubic articulation. 4. In order to obtain a good grip, the bite of the blades should reach the level of the iliac crest. The *point d' appui* should be taken at the iliac crest; the convexity of the fœtal hips will adapt itself to the concavity of the blades of the forceps, and the abdominal viscera will escape injury. 5. Porro's forceps thus applied has an excellent grip, especially in the anterior presentations. In the intervals between the efforts at traction it is desirable to maintain a certain compressive force with the instrument, lest the resiliency of the iliac bones cause the instrument to lose its grip. 6. Porro's forceps will answer all the requirements for application to the breech. The author thinks that most of the forceps which are now in use are too large, and have departed far from the simple plan of the original instrument.

Microscopy.

Studies in Histology.

SECTION CUTTING.

In order to examine many of the tissues by transmitted light it is necessary to have them cut into thin sections. Very few of the tissues are in a suitable condition to be submitted to this method of procedure.

Tissues that are of a soft and yielding nature may be examined by snipping off a thin fragment with a pair of scissors with blades curved on the flat. Portions of these sections at the circumference will be found sufficiently thin for examination. If larger sections be desired recourse may be had to a Valentin's knife. This knife consists of two long parallel blades, which can be separated from each other by means of fine screws. The thickness of the section of course depends upon the degree of approximation of the blades. The sections obtained in this way are of limited dimensions and seldom of uniform thickness. It is a method of section cutting but little used and cannot be recommended.

Many tissues prepared for study at the present time are cut with a freezing microtome, although embedding in the well-microtome has its legitimate place and will in all probability remain in constant use. There are advantages arising from the use of both fresh and hardened specimens, but as a rule the latter will be found the more satisfactory.

There are several patterns of freezing microtomes, some using ice and others ether. The ice-freezing microtomes work very nicely, only it is somewhat disagreeable to charge them, even when ice is plentiful. The ether microtomes give good satisfaction provided the instrument is furnished with good nozzles. It is a pleasure to use one of these well-made instruments; while, if poorly made, giving a coarse spray and using much ether, they become a source of great trial.

Tissues that have been hardened after some of the methods already given are best cut by the aid of some microtome. The common well-microtome consists of a stout brass tube closed at one end and fixed at right angles at the other end into a smooth plate of brass, which should be covered with glass. A disk of brass is fitted into the interior of the tube and is acted upon by a delicate threaded screw fastened to the base of the tube. By turning the milled head below the tube, the disk is raised and the section embedded in the tube raised with it. This microtome is well made, has a smooth glass cutting-plate, the diameter of the tube is of good size, the screw is well cut and has a graduated head. The upper surface of the plug has a groove in it to keep the embedding mixture from rotating as the sections are cut.

There is one difficulty with this microtome as with nearly all the others. There is nothing to prevent the embedding mixture from becoming loosened from the surface of the plug and rising in the tube as the sections are being cut; although the groove is pyramidal in shape still it will not hold the paraffin firm enough to prevent this most annoying imperfection. This trouble has been remedied, however, by having a small hole drilled in the upper surface of the plug and by fastening in it a small screw with a broad flat head.

This is the most useful form of microtome that can be purchased for anything less than ten dollars. If three times this amount can be expended, then some form of a microtome should be selected that can be used either as a freezing-microtome or simply as a more common well-microtome. This pattern should also hold the knife in a suitable frame, so attached to the microtome that all movements of the knife may be absolutely free and easy. To use these superb instruments it is only necessary to attach the tissue to a piece of cork with some gum solution and proceed at once to cut the sections. If the tissue be soft and fresh then a few moments suffice to freeze it hard with the ether spray.

If the tissue be already hardened, then as soon as the gum has hardened sufficiently to hold the tissue to the cork the section-cutting can commence. It is better to attach several of the hardened pieces of tissue to corks with the gum solution at one time and then place them in the bottle of alcohol to be used at pleasure. The cork only is placed in the clamp of the microtome while the superimposed tissue is left free for the knife. There is no embedding mixture of any kind; the edge of the knife is entirely free from contact with everything except the tissue, hence never gets injured; the instrument is so carefully graduated that sections can be cut very rapidly, from $\frac{1}{1200}$ to $\frac{1}{2500}$ of an inch thick; and besides the instrument is simple, compact, and always clean.

EMBEDDING MIXTURES.

$$\left.\begin{array}{l}\text{Solid paraffin, 3 parts}\\ \text{Cocoa butter, 1 part}\\ \text{Hog's lard, 3 parts}\end{array}\right\}\text{soft.}$$

$$\left.\begin{array}{l}\text{Solid paraffin, 3 parts}\\ \text{Cocoa butter, 2 parts}\\ \text{Spermaceti, 1 part}\end{array}\right\}\text{hard.}$$

$$\left.\begin{array}{l}\text{Solid paraffin, 2 parts}\\ \text{Cocoa butter, 1 part}\\ \text{Spermaceti, 1 part}\end{array}\right\}\text{harder.}$$

$$\left.\begin{array}{l}\text{Paraffin, 2 parts}\\ \text{Vaseline, 1 part}\end{array}\right\}\text{Transparent and easy to cut.}$$

These are very common mixtures for embedding, although Cole, of London, recommends them only to "those who are fond of messes, and the method is mentioned only to condemn it as unnecessary and dirty in every way." Notwithstanding this terrible denunciation, the method of embedding with paraffin will continue to occupy its position as an easy way of holding a tissue firmly in place without injury to it or to the knife.

THE KNIFE.

The knife should be ground so that the under surfaces of its edge and back are strictly parallel. The blade should vary from five to eight inches in length and should be of the best tempered steel, in order not only that it may be capable of receiving an edge, but also that it may retain the edge. The blade should be either biconcave or at least have one of its surfaces slightly concave. A knife appears to work the best when its lower surface is slightly concave and its upper surface more concave still.

METHOD OF USING.

When ready for work only about the quantity of embedding mixture required should be melted. The mixture should be heated just enough to melt it and no more, and a water bath is best for this purpose. If too much heat be applied the paraffin will shrink from the sides of the well of the microtome when cooling, and, also, the high degree of heat might affect the tissue to be embedded.

The tissue is now removed from the alcohol and placed on a piece of blotting paper, which will absorb the excess of the alcohol. The surface of the tissue rapidly dries by the evaporation of the spirit, and when the surface only is dry the whole specimen is dipped into a weak solution of gum-arabic. But few realize the value of this simple step, yet it saves a great amount of trouble and annoyance. The tissue is removed from the gum solution and the surface allowed to become quite dry. It is then dipped in melted paraffin and immediately withdrawn. The layer of paraffin will speedily harden and will protect the tissue from the more prolonged heat of the embedding mixture when placed in the microtome.

The tissue thus prepared is placed in the well of the microtome, close to that edge of the tube which is situated nearest the edge of the knife as it rests on the glass plate ready for cutting. The melted paraffin is slowly added until the tissue is completely covered. As the paraffin shrinks in cooling it is best to have plenty of it over the top of the specimen that it may not become again uncovered.

When the paraffin is sufficiently hard, the microtome is clamped to the table and the operator is seated on a chair before it. To the right is a large soup plate and a saucer, each filled with equal parts of alcohol and water. A chamois or piece of soft linen is near at hand. The knife is firmly grasped in the hand and dipped in the plate, carrying in its upper concave surface a quantity of the dilute alcohol to the surface of the microtome. A few turns of the microtome screw raises the paraffin, when a thick slice is cut off. This is repeated until the knife has passed once through the tissue.

The knife should be pushed obliquely from point to heel, a direction forward and to the left. After each section the blade should be wiped on the chamois or linen, to remove any pieces of the embedding mixture from its edge.

A partial revolution of the milled head raises the embedded tissue above the surface of the microtome; the knife is dipped in the dilute alcohol and a quantity of it carried to the surface of the microtome, which is kept flooded all the time; a rapid push of the knife removes a section which is carried into the saucer and floated off; the section clears itself from the embedding mixture owing to the layer of mucilage coating its surface and falls to the bottom of the dish while the oily paraffin remains at the top, to be floated off. —C. H. Stowell.—From the *Microscope.*

Gleanings.

ANALYSIS OF BEEF PEPTONOIDS.—Report of *Beef Peptonoids* by PROF. ATTFIELD, F.R.S., F.I.C., &c., Author of "A Manual on Chemistry, General, Medical and Pharmaceutical."

The chemical examination to which I have submitted your Beef Peptonoids yields the following results in 100 parts:

Albumenoids (containing nitrogen 10.94),	69.25
Fat, ...	10.71
Sugar, including a trace of starch, . .	9.50
Phosphates, equal to bone phosphate, .	3.01
Other mineral substances, ...	2.61
Moisture, ...	4.92
	100.00

The manufacturers of "Beef Peptonoids" state that this food is composed of dry lean of beef, one-third; the solids of milk, minus most of the fat, one-third; the gluten of wheat, one-third; the beef being partially digested or "peptonized." My analysis fully supports this statement; for I find present between 69 and 70 per cent. of albumenoids, that is, flesh-forming material (nitrogen 10.94); more than 20 per cent. of warmth-producing substance, nearly half of which is milk sugar, and rather more than half fat; 3 per cent. of bone-forming phosphates, about 2 per cent. of other normal mineral matter, and about 5 per cent. of moisture. A sample of the constituent gluten submitted to me was practically pure, containing a mere trace of starch.

Rather more than one-fourth of the albumenoids, probably the "peptonized" portion, was soluble; while practically the whole of the "Beef Peptonoids" was readily soluble in peptonizing fluids, showing that it is easily and wholly digested when taken into the stomach. The flavor and odor of the preparation are excellent; its thorough state of dryness fits it for keeping any length of time in any climate. It is by far the most nutritious and concentrated food I have ever met with. Indeed, a palatable and assimilable and in every way acceptable article of food, containing nearly 70 per cent. of truly nutritive nitrogenous material partially peptonized has never before, to my knowledge, been offered to the medical profession or to the public.

LONDON, *November* 18, 1883. JOHN ATTFIELD.

PSEUDO-CYST OF THE OVARY.—At the Pathological Society of Nantes, M. H. Heurtaux exhibited the specimens of a pseudo-cyst which had given rise to all the clinical signs of a true ovarian cyst. The patient, aged 45 or 50, had for months observed her belly increasing in volume, becoming globular and fluctuating. She had had no particular previous history, no anterior phlegmasic phenomena, and the distress resulting from the development of the belly alone caused her to seek surgical aid. A median abdominal incision disclosed a thick, smooth resistant surface, similar to that of a cyst. Numerous adhesions existed between this surface and the abdominal wall, especially at the sides. Puncture gave exit to many litres of citrine liquid, similar to cystic fluid, the discharge frequently stopped and began again when the canula was displaced in different directions. The dissection of the adhesion was laboriously accomplished with the thermo-cautery, scissors and fingers. Much trouble was experienced in destroying a very close adhesion at the periphery of the pouch, uniting it with the colon ascending, descending and transverse. This adhesion once divided, the small intestine appeared perfectly free. The pouch which had been taken for cyst had no posterior wall, and was found applied like a watch glass to the arc of the colon. It was a kind of apron covering the mass of the small intestine.

The cavity was constituted in front by a wall convex anteriorly, fibrous, thick and resistant; behind by the mesocolons and the small intestine. There was no trace of the great omentum. The patient survived the operation only a few hours. The incomplete pouch which was presented, represented a segment of a sphere about 25 cm. in diameter at its base. Its external surface smooth, of fibrous appearance. Its internal face is areolar. These characters added to the absence of the omentum lead to the presumption that the internal face is constituted by the omentum degenerated by a partial peritonitis. The external face is supposed to be formed of new membranes fixing it to the large intestine.—*Gaz. Med. de Nantes.*

TREATMENT OF CHRONIC URETHRITIS AND CYSTITIS.—Dr. Guyon lays much stress upon the constitutional treatment with cod-liver oil, arsenic, iodide of iron, the sulphides externally and internally, balsams, douches, etc., according to the diathesis. The local treatment by injections, instillations and catheterization, is also of great value. Injections are only useful when judiciously employed; although most frequently used, they often fail on this account. They are either too strong or not strong enough; they either do injury or they are not efficient. Instillations made with an olive-pointed catheter, in which an opening exists at the side of the olive are more valuable. A syringe is adjusted to the other extremity of the catheter, and the instrument is gradually introduced into the urethra until it meets a slight sense of resistance, when five or six drops of the solution are thrown in; after waiting a few minutes, the instrument is introduced farther, and, when it reaches the posterior extremity of the urethra, twenty to twenty-five drops are injected. The medicament usually employed by M. Guyon is the nitrate of silver (1.20 to 1.50); he also uses the sulphate of copper (1.10 to 1.50). Catheterism is not to be practiced early, for fear of complications, orchitis, cystitis, etc., but in obstinate cases it may be cautiously used every second day; the metallic bougies are the best for the purpose. Medicated bougies seem to be without utility. Should blennorrhagic cystititis with hemorrhages occur, it is best treated by instillations of nitrate of silver, which rapidly stop the bleeding. This treatment is also effective in chronic cystitis, which is particularly liable to be persistent and have relapses.—*Atlant. Jnl. Med.*

VAGINAL HYSTERECTOMY.—Professor Mueller, of Bern, performs this operation (*Medical News*) for carcinoma uteri by a method differing from those usually employed. To prevent hæmorrhage he first compresses the abdominal aorta with the fist, and by limiting his incisions to the anterior and posterior walls of the vaginal vault he avoids bleeding from the large vessels which ramify in the lateral walls. The uterus is retroverted through the posterior incision (a difficult operation), provisional threads are thrown around the broad ligaments and undivided vaginal walls, and the uterus is split vertically in two symmetrical parts. The resulting pedicles are now tied with strong double ligatures and divided near the uterus, which is then removed. The vessels of the stumps are tied, and the aorta freed from compression and any other bleeding vessels secured. The stumps are allowed to retract and the ligatures cut off on a level with the vulva, and the vagina tamponed. The parts are thoroughly douched with sublimate solution. The ligatures should come away in the third week.

A NEW method of partial extirpation of cancerous uterus is reported by Dr. Ely Van De Walker. He amputates the cervix uteri up to the vaginal junction. Excising it as high as the os internum making an irregular triangle with the base at the vaginal junction, but little hæmorrhage follows. The uterus is packed with masses of absorbent cotton dry from an iron solution of one part of subsulphate of iron to three of water. The dressing is removed on the second day, then the opening is packed with caustic cotton, using a solution of chloride of zinc, protecting the vagina with vaseline pomade made by adding one part soda bicarbonate to three parts of vaseline.—*Medical Review.*

POISONING BY VAGINAL INJECTIONS.—Dr. Webb Kelly reports a number of cases of carbolic-acid poisoning by the constant use of injections of carbolized water by women to prevent conception. He says, cases of this kind are of daily occurrence in American practice, where the constant use of this agent produces a mild form of poisoning, great nervous prostration, and irritability of the parts affected. Withdrawal from connubial intercourse for a time, and the consequent carbolized injections, in most cases resulted in the re-establishment of health.—*Columbus Med. Jour.*

FŒTID AND SWEATING FEET.—Dr. A. M. Vail, in the *Jour. Am. Med. Association*, recommends the following very highly: ℞. Aluminii et ammo. exic., grs. 2; acidi boracici, grs. 2; aquæ simp. or rosæ, grs. 35. Mix et Sig.—Apply with soft sponge without rubbing, just as soon as the shoes and stockings are removed, while the feet are yet moist. This is quite necessary, as also the care not to rub.

Let this be repeated every two or three days, in the evening.

HICCOUGH.—Dr. Tucker, in the *Southern Med. Record*, says this very common affection has a specific remedy, at least one which I have never known to fail. Moisten granulated sugar with good cider vinegar; give to an infant from a few grains to a teaspoonful. The effect is almost instantaneous, and the dose seldom needs to be repeated. I have used it for all ages, from infants a few months old to those on the down-hill side of life.

Book Notices.

DIAGNOSIS AND TREATMENT OF DISEASES OF THE HEART. By CONSTANTINE PAUL, member of the Academy of Medicine; Physician to the Lariboisierre Hospital. Translated from the French. 8vo., pp. 335. New York: William Wood & Co. Cincinnati: Horace Stacy.

This volume forms the March number, 1884, of Wood's *Library of Standard Medical Authors.*

So important an organ as is the heart, the diseases of it should be closely studied by every practitioner and thoroughly understood; for their gravity does not cease on recovery from them, but dangers follow upon their sequelæ. As is well known, an endocarditis or pericarditis is far more to be dreaded in consequence of the changes it may bring about in the structures of the heart, which remain permanent, and may lead to a fatal result years after the disease has subsided, than on account of the danger of thesymptoms which belong directly to it.

The work is devoted to a very complete description of all of the abnormal conditions of the heart. There is first given a general description of the heart in a condition of health—describing its position in the thorax. Then follows chapters devoted to an account of the physical examination of the organ, of its enlargement, describing the clinical exploration of the movements of the heart, and the cardiac sounds, etc. After the discussion of these subjects sufficiently at length to fully elucidate them, the diseases of the heart and its membranes are taken up and very fully treated. In the latter part of the work an account of the treatment of cardiac diseases is taken up, the first chapter in this department giving a list of the chief drugs which act upon the cardiac movements—moderators of the heart.

The work will undoubtedly be regarded as a valuable addition to the series of volumes of Wood's Library for the year 1884. It is a work which should be in the library of every physician. Such works as this we would expect to make the Library very popular, and increase largely the number of its subscribers.

AUSCULTATION, PERCUSSION AND URINALYSIS: An Epitome of the Physical Signs of the Diseases of the Heart, Lung, Liver and Kidneys. Edited by C. HENRI LEONARD, M. A., M. D., Professor of Medical and Surgical Diseases of Women, and Clinical Gynæcology, Michigan College of Medicine. Fully illustrated; Cloth, 16mo., 166 pages, price, $1.00. Detroit, Mich., 1884: The Illustrated Medical Journal Co., Publishers.

CONTENTS:—Chap. I.—Topography of the Chest, Anterior and Posterior. Chap. II.—The Physical Diagnosis of Diseases of the Respiratory Organs. Chap. III.—Diagnosis by Percussion. Percussion in Health and Disease. Chap. IV.—Auscultation of the Chest, in Health and Disease; also of Voice, Cough and different Rales. Chap. V.—On the Sputa, Microscopical and Macroscopical, with a brief History of Lung Structure. Chap. VI.—Diseases of the Lungs; their Pathology and means for Physical Diagnosis. Chap. VII.—On the Pulse; its Rate, Rythm and Sphygmography. Chap. VIII.—The Heart; its Regional Anatomy, Area of Dullness on Percussion in Health and Disease. Chap. IX.—Auscultation of the Heart; the different Cardiac Murmurs and their Indications of Disease. Chap. X.—Diseases of the Heart; their Pathology and Physical Signs. Chap. XI.—The Liver; its Regional Anatomy, Histology, and Physical Signs of the different Diseases. Chap. XII.—The Spleen; its Regional Anatomy, Histology and Physical Signs of Disease. Chap. XIII.—The Kidney; its Regional Anatomy, Histology Pathology and Symptoms of different Diseases. Chap. XIV.—Urinalysis, Chemical and Microscopical; prepared specially for this work by Wm. H. Rouse, M. D., Ph. C. Chap. XV.—Bacteria, Bacilli, Micrococci, Vibriones and Spiriliæ; their Growth, Microscopy and Agents destructive to them.

The price of the work as stated is $1,00; that is the least sum at which it can be purchased from the publishers; but desiring to accommodate our friends, we will send it to any *subscriber* of the MEDICAL NEWS for the small sum of *fifty cents.* It is cheap at the publishers' price, and it is a work which every physician ought to have. We feel assured that any one having a copy would not take $10.00 for it if he could not get another.

HOOPER'S PHYSICIAN'S VADE MECUM: A Manual of the Principles and Practice of Physic; with an Outline of General Pathology, Therapeutics and Hygiene. Tenth Edition. Revised by William Augustus Guy, M. B., Cantab., F. R. S., Fellow of the Royal College of Physicians; Late Professor in King's College, etc., and John Harley, M. D., London, F. L. S., Fellow of the Royal College of Physicians; Honorary Fellow of King's College, etc. 8vo. Pp. 338. Vol. I. New York: Wm. Wood & Co. Cincinnati: Horace Stacy.

The work, whose title we give, is in two volumes; volume I, which we have on our table, forming the May number of Wood's Library of Standard Medical Authors.

In noticing this work we cannot probably do better than to copy the "American Publishers' Note," appended to the volume. It gives a good idea of the value of it, and the reason of its publication in the way of forming a portion of the series of Wood's Library: "One of the remarkable books in medicine is Hooper's 'Physician's Vade Mecum.' For over fifty years it has enjoyed the confidence and esteem of the profession; revised and improved from time to time, it has always kept its place in the front rank as a reliable and concise treatise on the practice of medicine. The present issue is reprinted from the tenth English edition, which is fresh from the press, and presents the most advanced and approved views of the subjects of which it treats."

The book is intended to be, in the largest sense of the term, a practical work; that is to say, it aims at bringing together, in a small compass, and in a form of easy reference, those items of information which the practitioner would wish to possess when he stands at the bed-side, or when he studies a case with a view to its treatment.

Kept abreast of the times it continues to maintain its value and popularity. It instructs how to recognize a disease when it is seen, and to distinguish it from others that resemble it, and to foretell its probable course and termination. It is generally considered that it is easy to treat a disease when it is recognized. Such being the fact, diagnosis is the most important department in medicine. But there are other important matters besides determining a disease; that is, the modifying influence of age, sex, temperament. To treat the same disease alike in all persons would be a great error—the result would often be disastrous. The work before us is full of practical information as regards these important subjects. Although not a Practice it describes diseases, differentiates between them, and sets forth the general principles of treatment.

The subscribers to Wood's Library for 1884 will be pleased that this work forms a part of the series.

PRACTICAL MANUAL OF OBSTETRICS. By DR. E. VERRIER, Lecturer on Obstetrics in the Faculty of Medicine of Paris. Fourth Edition, Enlarged and Revised, with the Four "Obstetric Tables" of Professor Pajot, One Hundred and Five Illustrations. First American Edition, with Revision and Annotations by Edward L. Partridge, M. D., Professor of Obstetrics in the New York Post Graduate Medical School. 8vo., pp. 395. New York: Wm. Wood & Co. Cincinnati: H. Stacy.

This volume constitutes the April number, 1884, of *Wood's Library of Standard Medical Authors*. It will be regarded a valuable member of the series of works to which it belongs.

This work, we understand, has met with a very cordial reception in France, where the ability of Dr. Verrier and Prof. Pajot is generally known and recognized. In a remarkable short time it reached a fourth edition. As is stated of it, it is very complete, of a practical nature and full of thoughts and suggestions which, because they belong, oftentimes, to the practice of another country, are not, therefore, to be overlooked.

This work belongs to a class of which we have only comparatively few in this country, being intermediate to a manual for students and the elaborate treatise appropriate for the practitioner who is versed in the principles of the obstetric art. It is just such a work as will suit the young practitioner who, having graduated, is seeking for business.

The work is divided into six parts, and the parts subdivided into chapters. The first part—two chapters—describes and treats of the anatomy of the female organs of generation—chapter first considering the bony pelvis; chapter second, the soft structures of generation. The second part is devoted to the consideration of pregnancy—the physiological changes. In this part there are three chapters describing gestation—conception; the phenomena occurring in the product of conception, as the initial changes in the ovum, corpus luteum, placenta, etc. The third part is lengthy, containing seven chapters, and treats of parturition. Part fourth contains a large amount of very practical information which is worthy of close study by the student and practitioner. It is devoted to the consideration of the pathology of pregnancy; dystocia. In the first chapter are treated derangements coming from functional changes—hygiene and therapeutics; second chapter, intercurrent diseases of pregnancy; chapter third, dystocia, or difficult labor, then follows the consideration of other subjects which we have not space to mention. Part five treats of maneuvres and operations, occupying some three chapters. Part six, the last part, is devoted to the management of early pregnancy.

We have given but a very meagre outline of the scope of the work, but even this will show that it covers the field of obstetrics in a very thorough manner, omitting nothing of importance.

Editorial.

DELAY.—The MEDICAL NEWS is unusually late in making its appearance in its present issue. We are not to blame for it, but our printers. They can explain the reason of the delay better than we can, and we, therefore, refer to them for the explanation. We are promised, however, that the next number will be out more promptly. We hope so.

OUR thanks are due Mr. Chas. W. Rowland, the Health Officer, for a printed report of the SEVENTEENTH ANNUAL REPORT OF THE HEALTH DEPARTMENT TO THE COMMON COUNCIL OF THE CITY OF CINCINNATI, for the fiscal year ending December 31, 1883. The Report occupies 119 8vo. pages.

The present Board of Health came into existence under difficulties during the month of August, 1883. In consequence of corruption, accepting bribes, selling appointments, etc., bad management, incompetency and other reasons, a previous Board had been legislated out of existence by the Legislature. For some time, as a consequence, the city was without a legal Board. Finally, the city Council passed an ordinance creating a Board of Health; but for some reason some of the men appointed upon it were not popular, and the new Board did not meet with favor. A number of prominent physicians were offered the position of Health Officer, but they would not accept. Under the circumstances, Mr. Chas. W. Rowland, who is not a physician, was appointed Health Officer. Mr. Rowland being a highly intelligent gentleman, as fully acquainted with the laws of health, causes of disease, etc., as any one possibly could be who was not a member of the medical profession, and being, besides, an exceedingly active and energetic person, has made a very excellent Health Officer, a better one than some of those in the past who were physicians. He is possessed of enlarged views—can intellectually grasp a good many points in a subject of considerable scope, and see clearly their relation; has good executive abilities; and is not lacking in force of character—a greatly needed qualification; for how little will scientific knowledge amount to, and good morals, if there is not strength of purpose to put into practice the truths of science and convictions of duty. There are but few persons in our selfish world, however *respectable* they may be, who would not rather offer for sale a boat-load of animals too diseased to be healthy for food, or a car-load of decaying vegetables not fit for consumption than have them condemned and lose their value. The love of money is greater in the breasts of business men generally than love of the brethren, and as the killing of an individual from feeding him with unhealthy food is not so marked and does not follow so evidently as an effect as when a pistol-ball is sent crashing through the brain, we find that killing a man, providing that it is not plainly seen, is preferred to the loss of money. The community, therefore, must be protected, and that can only be when the Health Officer is a man who will do his duty fully under all circumstances, and will not let the health of the community be endangered by persons who have selfish purposes to subserve.

The Report shows conclusively that the clerk of the Board, Mr. J. T. Colling, is a very competent gentleman. The various statistical tables exhibit skill and industry, being so arranged that their points can be understood at a glance.

There are very many items of interest contained in the Report; for instance, we learn that during 1883 there were 189 deaths from smallpox as against 1,249 in 1882. The 189 deaths occurred in 526 cases. The number of deaths from all causes during 1883, was 5,916. Of these 3,567 died in tenement houses and boarding houses, 1,501 in private houses, 673 in public institutions, 175 in a class of houses not stated. 1,363 of the deaths are stated to have been from zymotic diseases; 219 were the result of violence —as homicides, 16; suicides, 39; accidents, 164. Suicide by shooting seemed to be the favorite method of "shuffling off the mortal coil," as 13 occurred by shooting; the next favorite method was by hanging—11 employing it. It seems astonishing to us that this disgraceful mode of taking one's life is ever selected by any one. Two suicides cut their throats, one the wrist, one miserable man tried the terrible act of jumping out of a window, not knowing, whatever may have been the height, but that hours of suffering would result. Ten suicided by taking laudanum and other poisons. The Frenchman's favorite way of taking his life is by means of carbonic acid gas. It is undoubtedly painless, and we are surprised that more suicides in this country do not make use of it. Probably the American is deterred by the difficulty in employing it. Morphine and other narcotics afford such opportunities of dying painlessly that we presume the reason that they are not more employed is in consequence of the difficulty in procuring them. Large doses, however, sometimes produce emesis and thereby thwart the act.

The number of births during the year were 7,956 as against 7,101 in 1882. Of these a fraction over 30 per cent. were attended by physicians, and a fraction over 69 per cent. were attended by midwives. We are confident that a very large number of births are never reported.

Our space will not permit us at this time to call attention to a number of other features. At another time we propose to recur to the Report and say something in regard to the management of our markets, milk inspection, general cleanliness, etc.

American Medical Association.

Philadelphia, June, 1884.

Dear Sir:

At the meeting of the American Medical Association held at Washington in May last, an Amendment to Regulation II. was adopted, which provides that—

Membership in the Association shall be obtainable by any member of a State or County Medical Society recognized by the Association, upon application endorsed by the President and Secretary of said Society; and shall be retained so long as he shall remain in good standing in his local Society, and shall pay his annual dues to the Association.

You will perceive that, as far as such opportunities are embraced, the strength of the Association will be increased and consolidated, so as to unite the profession and give it a force and influence not otherwise attainable. Without undertaking, however, to point out the advantages of this action on the part of the Association, or to advocate the plan of which it is a main feature, it may simply be said that, as the new departure has been taken, it is for the Association and its constituent bodies to carry it out to the fullest extent, and to give the movement their hearty cooperation.

Toward this end, the first step is to make the action of the Association as widely known as possible; and you are, therefore, requested to bring the matter to the notice of your Society and its individual members, either by circular, or in such other way as may seem to you most effective for the purpose.

Applications for membership, in the manner specified above, accompanied with Five Dollars for annual dues, should be sent directly to the Treasurer, Dr. Richard J. Dunglison, Lock Box 1274, Philadelphia, Pa.; on receipt of which the weekly Journal of the Association will be forwarded for one year to such member.

Respectfully yours,

William B. Atkinson, M.D.,
Permanent Secretary.

We are in receipt of the above circular and heartily indorse the action proposed in it. We hope that medical societies will recommend its adoption.

DR. PACKARD AND THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.—Our readers will doubtless remember that, in the May issue of the MEDICAL NEWS, in an editorial article, we briefly noticed some of the proceedings of the late meeting of the *American Medical Association.* With other items, we alluded to the report of Dr. Toner, of Washington, relative to the official journal of the Association—*Jour. of the Amer. Med. Association*—which the Association established to take the place of the yearly volume of Transactions which used to be issued by it. Dr. Toner's report stated that the journal was on a sound financial basis, and that Dr. N. L. Davis, who was the editor of the journal and had been conducting it since its establishment, had tendered his resignation, but now consented to continue in that capacity for another year. Just as action was about to be taken on this report, which it seems that Dr. Toner, the chairman of the Trustees making the report, thought embodied the sentiments of the entire Board, Dr. Packard, of Philadelphia, a member of the Trustees, asked permission to submit a minority report. Dr. Toner, as we stated in our May issue, immediately made the declaration, "This is the first the Board of Trustees have heard of the minority report."

Dr. Packard, in his minority report, suggested that a *trained* and paid corps of editors be employed, and that the office of publication be removed to either Washington, Philadelphia, or New York. The minority report, as was highly proper, was laid on the table by a vote of 191 to 74, and the majority report was adopted. Any other action would have been an insult to the profession west of the Allegheny Mountains.

In regard to the action of Dr. Packard, we commented as follows: "We presume that Dr. Packard is one of those gentlemen who have a hearty contempt for all things—men and institutions—west of the Allegheny Mountains. He considers that the patronage of Western medical men with their money might be accepted, but that it would be undignified to further recognize them than to permit them to pay the expenses of an enterprise. We readily grant him the privilege of thinking as he pleases, and hope he may have much comfort in his views. When we meet with an individual who is under the impression that he himself and the few persons who live within a hundred miles of him are the only ones who know anything, we consider his sources of pleasure as being limited, and that it would be a sin to disturb him in the enjoyment of any of his conclusions, even though it happens we are located outside of his intellectual world."

When we wrote those lines we had not the slightest intention to misrepresent Dr. Packard. The actions upon which we based our assertions had just been stated, having quoted from the published proceedings, and our readers could easily judge whether they were just or not. But Dr. Packard himself thinks we did not do him justice, and, as evidence of no disposition on our part to treat him unfairly, we will quote entire a letter he wrote us recently, in which he elaborately sets forth his cosmopolitan feelings towards the profession:

"PHILADELPHIA, June ——, 1884.

"J. A. THACKER, M. D.,

"Editor Cincinnati MEDICAL NEWS:

"*Dear Sir*—In your issue for May last, you have seen fit to make some editorial remarks in regard to me which I think I can show you are neither generous nor just.

"My belief is that few men are more absolutely free from sectional or local prejudice than myself. Few men can take more pride than I do in the excellence of the profession all over our own country, as compared with those of other lands. It has been my earnest desire always to recognize and acknowledge the work of *American* medical men; and it was in order to bring East and West, North and South, into closer contact and to secure their more united action, that I gave my best efforts to advancing the project of the journal of the American Medical Association.

"The minority report read by me at the late meeting of the Association was simply the expression of my deliberate judgment, and I should have been false to my duty as a trustee had I not presented it. Mistaken I may have been, but I was certainly honest; and Dr. Toner knew that my voice and vote in the Board had been consistent throughout. Moreover, several of the Board knew that the report was to be presented. Dr. Toner paid but a poor compliment to his own discernment, or to my honesty, in expressing surprise at my action.

"If it is not the case that great libraries, unemployed workers and ready access to current literature are more available at the East than at the West, the fact can be easily demonstrated, and no man will more candidly admit it than myself. If it is the case, then the fault is surely not mine, and my statement must be accepted. It certainly can do no harm, and must probably do good.

"Now let me call your attention to the fact that in the issue of your journal in question, out of thirteen articles, *nine* are from sources east of the Alleghenies, *one* from Canada, and only *three* from Western States, counting Ohio and Michigan as such.

"Ever since, in 1880, as chairman of a committee of the American Medical Association, I began to advocate the establishment of the journal, my controlling motive has been to advance the interests of the Association, and through them those of the medical profession from Maine to California. I utterly repudiate the narrow-minded views you impart to me, and call upon you in justice either to withdraw your remarks, or to show how they are warranted either by my writings or by my actions.

"I have written in great haste, but trust that I have expressed myself with sufficient clearness; and am,

"Yours truly, JOHN H. PACKARD."

Now after reading the letter of Dr. Packard, we feel sure that our readers will perceive at once that no injustice was done him in the statement that he is one of those gentlemen who is of the opinion that all the medical lore that exists in this country is to be found east of the Allegheny Mountains. To prove it he insinuates that nearly all the matter in the MEDICAL NEWS originated in the East, and asks the question, "If it is not the case that great libraries, unemployed workers, and ready access to current literature are more available at the East than at the West?" He is too polite a gentleman to broadly assert that the Western doctor is an uncouth ignoramus, and, may be, he does not hold quite such extreme views, but he insinuates as positively as politeness permits that the *learning* of the profession is in the East.

But, supposing, excluding editorials, book notices, gleanings, etc., that nine of the articles in the May issue of the MEDICAL NEWS come from Eastern sources, one from Canada, and only three were written west of the Allegheny Mountains, would that fact be any proof at all that the learning of the profession is to be found in the East. Dr. Packard ought to read a work on Evidence. Every article in our May number might have been contributed from the East, and no court would rule it as competent evidence in proving Dr. P.'s assumption. We could easily show how so great a preponderance of reading-matter happened to come from the East, in our May issue, without its implying that there is existing an intellectual dearth in the West, but it is not necessary. We will merely state that some of the medical societies in the East very kindly furnish their proceedings, as papers read, discussions held, etc., to journals, so as to save the journals the least possible trouble in securing them and printing them. But this is only a recent feature on their part. Some of our home societies seem to consider it a great favor to a journal to permit it to report their proceedings at all; and, consequently, instead of aiding, they put all possible obstacles in the way. But this is a moral, not an intellectual weakness.

Says Dr. Packard, further, in evidence that there is more intellectual ability, and also, we suppose, intellectual activity in the East than in the West, and, therefore, that the *Journal of the Amer. Med. Association* should be removed there, that great libraries, unemployed workers, and ready access to current literature are more available in the East than in the West. We have no doubt that there are great libraries in the East; in fact, we have visited a number of them ourself, and were much entertained. We are willing to admit, also, that there are "unemployed" workers, although it seems somewhat of a contradiction to speak of any one as a worker who is not employed. We have a vast number of "unemployed workers" in the West—too many of them, in fact. They are to be found all over Cincinnati. Some of them would be willing to do almost anything to keep the wolf from the door—edit a medical journal, read proof, use the scissors in clipping articles from journals, or engage in any employment. As regards libraries, there are quite a number in Cincinnati, and we presume also in Chicago. If they do not contain as many volumes as some of the libraries in the East, they have on their shelves, at least, all the works of the masters in literature, in art, science, history, etc. But what is the necessity of the use of immense libraries in order to conduct a medical journal. We presume that every intelligent medical journal editor in the country has a pretty well-stocked library of his own of standard medical authorities, and, in addition, he receives in exchange all the medical periodicals of his own country, and not a few of foreign countries. What more does he need in order to edit any medical journal? We know a physician in Cincinnati who has on the shelves of his library the works of Celsus in the original Latin; also, in the same language, the works of Thomas Willis, Gaubius, Cullen, Haller, and not a few others; the works of John Hunter, and of those of several hundred other distinguished medical writers from the time of Hunter to the present time, besides many volumes of bound medical journals. Whatever need he might have of the writings of those he does not possess, in editing a first-class journal, he probably could find them in the volumes Prof. Mussey, on his decease, willed to the Public Library, or in the libraries of his friends in his neighborhood. Now we presume that this gentleman is not the only medical gentleman in Cincinnati with an extensive library. As regards other Western cities, we feel sure that they are not a whit behind Cincinnati in large public and private libraries.

But we have written much more than we had intended. We will only say further that it is quite diverting oftentimes how cooly some of our Eastern friends assume that all the learning of the country has its seat in the East. Such, however, are exceedingly cosmopolitan. They only think so because it is so. They, of course, did not make it so—they only accept the fact, and will be exceedingly rejoiced when it is different. Dr. N. L. Davis was one of the founders of the American Medical Association, and has been an editor and writer for many years; yet, of course, according to the Eastern notion, his extensive experience would go for nothing compared with the *training* of some young fledgeling in Philadelphia, Boston or New York—one of the "unemployed workers"—who has reported hospital cases and society proceedings for five or six months.

LOCOMOBILITY OF THE BRAIN.—The learned editor of the *Medical Record*, in the number of that journal of May 31, calls the attention of physiologists to the great value of a recent paper by M. Luys upon the locomobility of the brain, and with the weight of his authority supports the position taken by that brilliant gentleman before the Academy of Medicine of Paris.

The learned editor goes on further and gives the deductions of M. Luys, and inculcates the many lessons that may be learned therefrom as to the causation of various cerebral troubles that may occur from this locomobility and the best manner of relieving them.

Though at first sight the theory of M. Luys seems hardly credible, when we take into consideration the anatomical relations of the brain with its meninges and the bones of the cranium—a fixed bony parietes inclosing on all sides a nervous substance which imprints on its internal face the works of its different convolutions; strong and extensive fibrous folds separating and supporting the different segments of the encephalon; a vascularization extremely rich and subject to constant oscillations; a cerebro-spinal fluid filling the voids that may be occasioned by the circulatory oscillations, are the principal anatomical conditions assuring the stability of the encephalic mass,—nevertheless the learned editor, seduced by the weight of M. Luys' name, casts all the above-named considerations aside, and upholds without further proof or personal investigation a theory totally at variance with what is constantly demonstrated in man, to-wit: the arrangement for the safety and preservation of the more delicate structures.

We, therefore, call the attention of our readers to the fact that the locomobility of the brain is a figment; has no existence in reality, and the deduction made therefrom falls away. This has been demonstrated physiologically by the brilliant reply of M. Beclord, the perpetual Secretary of the Academy of Medicine, and anatomically by M. Saffey, the anatomist, the recognized authority on anatomy in France; both of these papers will be found in another part of this number of the MEDICAL NEWS.

As to the physiological deduction drawn from his theory by M. Luys we can only say with M. Trelat, some are entirely foreign to the subject, as seasickness and sunstroke, and the others find their natural explanation in the modification of the cerebral circulation.—I.

OHIO RIVER FLOOD SUFFERERS.—We have received from the author, R. T. Ames, A. M., M. D., Assistant Surgeon U. S. Marine Hospital Service, an octavo pamphlet of 75 pages, containing the official report of the relief furnished to the Ohio River sufferers from the flood which occurred in the Ohio River last February. The report embraces only the relief supplied to sufferers from Evansville, Ind., to Cairo, Ill., the author having had charge of the U. S. Relief Boat, Carrie Caldwell, which made two trips between the points mentioned. As large an amount of relief, maybe even more, was distributed by the United States Government between Cincinnati and Evansville. Of course there is no opportunity of ascertaining the relief supplied to flood sufferers by individuals, charitable organizations, churches, etc. We know from our own observations that contributions poured in like a flood, so that, in consequence of the excess, thousands of dollars were received by persons not deserving. Yet there was great distress––thousands of people having lost everything they possessed––made homeless, without any clothing except what they had on their persons, and that oftentimes ragged and dilapidated, and without food. During the flood there were often witnessed the remarkable phenomena of the rich and poor alike requiring charitable relief, at least for awhile.. There were many instances of those who were possessors of large property, but the waters swept every available article they had, and temporarily, with the river occupying their houses, they were without money, clothing, or food.

We learn from the report that there was distributed from the Carrie Caldwell, on its two trips, under the direction of Dr. Ames, 211,000 rations. The total amount of rations issued by the government to the sufferers of the floood between Evansville, Ind., and Wickliffe, Ky., was 308,110. Besides these rations there were distributed large numbers of blankets, comforts, etc.

We copy from the report the following remarks of Dr. Ames, which we consider as highly important, and attention should be given them by every intelligent person who lives on, or has any interest along the shores of the Ohio River, one of the finest rivers of this continent:

"The people of the Ohio Valley ought to learn an important lesson from the experience of the last two years. They should recognize that similar or even larger volumes of water will roll down this river annually, and they should make suitable provisions accordingly. In closing my remarks upon the cause of the overflow, I will state that still greater floods may be looked for hereafter, and that many of the towns upon the banks of the Ohio will have to be abandoned for human habitation. The question will, without doubt, be asked, What can be done to avert, in a measure, this evil? My reply is, Replace, to a large extent, the forests of the Ohio Valley. Construct large artificial reservoirs above Cincinnati that will hold the excess of water till such a time as it may be used in improving navigation in the Ohio during the dry weather, or open a canal at a similar point that will rapidly carry the excess of water across the country into the Gulf of Mexico. These look like great undertakings, but I venture to say that one or the other of the methods will be adopted in a few years if these destructive overflows continue, and I see no reason why they will not. Again, the improvements of the Mississippi River that are now going on are also calculated to lessen, in a degree, the extent of these great overflows by allowing the water to find a ready exit below. There can be no doubt that the bed of the Ohio and Mississippi are quite similar in appearance, and if the contemplated changes in the bed of the Mississippi are also carried into the Ohio it will necessarily lessen, or entirely remove, a minor cause of these floods, namely—a retention or backing up of the water by the sand-bars or hills of sand in the bottom of these rivers."

Whether or not *floods* in the Ohio River, in time to come, will be of yearly occurrence, as some seem disposed to think, we will not venture to say; but, if it should prove to be so, it will be folly to propose preventive measures that are not at all feasible. Dr. Ames, in the quotation that we have made, expresses it as his belief that still greater floods than have occurred in the past will happen in the future, and to be avoided the forests which have been cut down must be restored. But who will restore them? Can it be expected that parties who have purchased the cleared lands, after the trees that were upon them have been cut down, will replant them? Such an expectation is absurd. It is not necessary to recount the obstacles; they present themselves at once to the mind of any intelligent person. Equally absurd is the suggestion to build a channel from the Ohio River across the country to the Gulf of Mexico to drain away the excess of water. An engineering feat of that kind would eclipse any engineering work that has been undertaken through hills, mountains and across valleys since the beginning of the Christian era. The ship canal across the Isthmus of Panama has been considered a tremendous work, and when completed will undoubtedly be regarded a wonderful monument of engineering skill, but according to our conceptions of the two works, a channel that would permit of the scope of the mighty flood of water that comes rushing down the Ohio, when it overflows its banks and inundates the cities and villages upon its banks, would so far eclipse the Panama canal as a work of scientific engineering and of tremendous cost, that the latter, in proportion, would seem but a common ditch. Dr. Ames must suggest some other plans of a more practicable character than the ones he proposes if he wishes to be of assistance in averting the calamities resulting from the floods in the Ohio River if it should happen that they should be repeated.

After each one of the last two floods there was considerble increase in sickness in the inundated parts of the city of Cincinnati, owing, probably, to the dampness of the houses continuing for a long time, to the debris left in cellars and yards and other causes.

EXTRACT OF MALT.—We are surprised that this preparation is not prescribed by physicians more than it is. Probably the reason is that many, in consequence of using inferior articles, have lost confidence in it—considering it inert. Undoubtedly it has to be manufactured with the utmost care or the diastase will be destroyed, and when that occurs it is almost worthless. With that present, however, common reasoning leads to the conclusion that it is a beneficial agent. We have described a number of times how to ascertain whether or not there is diastase in a preparation that is proposed to be used.

THE S. D. GROSS PROFESSORSHIP OF PATHOLOGICAL ANATOMY.—We are in receipt of the following important announcement and take pleasure in calling the attention of our readers to it.

"American Surgery has had no better exponent than *Samuel D. Gross;* none so honored abroad and at home by institutions of learning; none more revered by his associates and his pupils. His long and brilliant professional career deserves the perpetuation of his name in close association with medical tuition.

"In furtherance of this object, the Alumni Association of Jefferson Medical College has inaugurated a movement to secure, in some medical school, the endowment of a *Memorial Professorship*, to be designated *The S. D. Gross Professorship of Pathological Anatomy.*

"The profession at large, the personal friends of the late

Professor Gross, and others interested in elevating the standard of medical education, are cordially invited by the undersigned to participate in this graceful recognition of conduct and services which have largely helped to establish the high standard of excellence to which Surgery has attained throughout the United States, and served so much to dignify the repute of American Medicine.

"Contributions may be sent to Dr. R. J. Dunglison, Treasurer, Lock Box 1274, Philadelphia P. O., and will be acknowledged in the columns of the "*Medical News*" of Philadelphia.

"D. Hayes Agnew, M. D.,
Chairman.
"J. M. Barton, M. D., *Secretary,*
1344 *Spruce Street, Phila.*"

We give a very large amount of space in this number of the News to translations from our French exchanges on the "*Locomobility of the Brain.*" This subject has been attracting very considerable attention on the European continent, and we desire to keep our readers posted on what is going on, even if in doing so some of our readers do not get prescriptions that are useful in typhoid fever, cholera morbus, etc.

Pruritus Vulvæ.—Dr. William Goodell, of Philadelphia, prescribes for this disease: carbolic acid, one drachm; morphine sulphate, ten grains; boracic acid, two drachms; vaseline, two ounces. Also, pat the parts with a sponge soaked in boiling-hot water. This is also a most excellent application for that rawness so often found between the thighs of the newly born.—*Louv. Med News.*

The Ashes of Dr. Gross.—We learn from the *Reporter* that the ashes of Dr. Gross weighed about seven pounds. They were inclosed in a marble urn about three feet high, unornamented, and without inscription, and placed by the side of his late wife in the family vault at Woodlawn Cemetery.

Listerine.—Our readers will notice that there is a change of reading matter in the advertisement of Listerine. We understand that this preparation continues to increase in popularity. From our knowledge of it we would expect this to be the case.

THE newsiest medical journal published in the United States is undoubtedly the *Phil. Med. and Surg. Reporter.* We are often indebted to its pages for news items.

OFFER TO SUBSCRIBERS.—Desiring to favor our friends, and perhaps to do something in the way of increasing the number of our subscribers, we have arranged with the publishers to present all subscribers of the MEDICAL NEWS with the work upon *Auscultatory Percussion and Urinary Analysis*, noticed under the head of Book Notices, for the small sum of fifty cents. The price by the publisher is $1.00, and we can make this offer only to those who are subscribers to the MEDICAL NEWS. Those who are not subscribers, by sending us $2.50 will obtain a copy of the work and the MEDICAL NEWS for one year.

Our readers have heard of Leonard's "Physician's Pocket and Day-Book," price, $1.00. It is 4 by 7½ inches in size, bound in full maroon colored Russian, with flap, pocket, pencil loop, etc. Contains no printed matter. The regular price for such a style day-book or visiting list is $1.50. It will accommodate *daily charges* for fifty families a week, with credits for two years. Besides these columns for credits and debits, there are columns for ledger page, total debits, total credits, and balance due; also pages for obstetrical memoranda, etc.

We will send this excellent and useful work to old and new subscribers for the small sum of fifty cents. We can sell to no other than to subscribers.

ALTHOUGH it is a very common occurrence for us to receive letters making flattering mention of the MEDICAL NEWS, yet it is seldom that we ever publish them, for we think that an inspection of it will exhibit its merits. A subscriber, however, recently writing to us, in alluding to the journal, so aptly and concisely describes it that we have concluded to quote his remarks:

"The MEDICAL NEWS meets the wants of the general practitioner better than any other monthly medical journal with which I am acquainted. "O. A. REA.

"MARMONT, IND., May, 1884."

THE
CINCINNATI MEDICAL NEWS.

VOL. XVII. NO. 199. Old Series. JULY, 1884. VOL. XIII. NO. 7. New Series.

Original Contributions.

"Regular" Quackery.

E. A. COBLEIGH, M. D.

MR. EDITOR:

In your issue of the NEWS for May you say, in the course of an editorial on advertising frauds: "Proprietary medicines are getting too common—many of them being utter frauds—and medical journals have been advertising them in a very reckless manner. It is time a halt was called."

To all of which I say a hearty amen. I am glad you have waked up on this subject, for the NEWS has not been wholly above reproach among all the rest of the medical publications, even though it has only followed the example of many, if not all, of the largest and most widely circulated professional journals of this country. I have studied often on this subject for a few years past, and have sometimes determined to express my opinions rather savagely in print, but a press of other things has prevented. Now, however, your expression rouses me to activity and I can resist no longer.

What, I ask, are we, as a profession, drifting to? Is it not time to open our eyes, to stop and, in sober earnestness, ask this question? The present state of affairs seems to me of a bad outlook, and I propose herein to canvass the situation and see if there is anything to be alarmed about. Has it come to such a pass that the physicians of to-day are too indolent or too ignorant to formulate their own prescriptions and to do their own thinking and observing? or does the commercial world regard us as a set of gullible fellows easy to be duped and the legitimate prey of unscrupulous sharpers? It looks very much as though we were being invited to sink our individuality and act as mere automatons for administering the specifics of rival pharmaceutists, who have hired for money men of superior intelligence to get up all the formulæ required by the physician in ordinary (or extraordinary) practice. I confess that on careful comparison I can not distinguish so *very* great a degree of difference between the advertising pages of a modern medical journal and the patent medicine columns of the secular and religious weekly papers. Such is the power of money to warp opinion and buy favors, and such the argumentative force of expense or poverty in their various grades, that almost the whole medical press seems prostituted to parading the virtues of this, that and the other remedy or appliance, until as the shoemaker of yore who lost his avocation, or had it narrowed to the sphere of patching, by the advent of ready-made shoes to fit any foot, so we seem threatened with the narrowing of our spheres of activity within the bounds of merely prescribing ready-made remedies to elastically fit all diseased conditions.

What was once a convenience—the preparing of a few recognized formulæ for ready use, or the manufacture of remedies requiring too expensive apparatus for the village apothecary—has degenerated into a curse. Formulæ have multiplied, manufacturing pharmaceutists have multiplied, competition has increased, till now nearly every distinguished physician has his name to some pill or formula, and even the country doctors are "drummed" to death by rival agents of these pharmacists, and have *samples* enough furnished them to answer for most of their practice. It has reached a point that each manufacturing chemist thinks he must concoct and introduce something peculiarly his own to give him reputation and trade. All are seeking a monopoly of some proprietary nostrum which must yield a golden harvest of shekels. The only difference between most of these and the makers of regular patent medicines is one of degree—the latter advertise among the laity and administer their remedies direct; the former advertise among the profession and dose their patrons by proxy through our mediation. And, I may add, there are instances where the enterprising manufacturer combines both methods, the same remedy being extensively advertised in our journals and in the secular press. I have in my mind now several examples of this character of very recent happening, two of the cases being infant foods. And all of these things blatantly exhibit their professional endorsements and testimonials, just like the makers of the popular almanac. Scores of them are used by hospitals, or receive official recognition in some quarter, and do not hesitate to parade that fact for all it may be worth.

As I write I have beside me, on my office table, copies of twenty-four different regular medical journals (weekly and monthly) of all grades, hailing from eleven different cities of the Union, and covering territory from Boston to Mobile and from New York to Chicago. I have just examined all of them and not one do I find which has not several advertisements of these proprietary remedies. Some of the advertisers appear in nearly all of the periodicals; others, more modest (or more impecunious), in only one or two. Now let us devote a little attention to these advertisements more in detail, and see what we find.

First of all, then, we are struck by the liberal use of printer's ink by a couple of firms whose sole business it seems is to add to the materia medica. Their "ads" greet us everywhere, displaying in large type a lot of perfectly new and novel drugs, which are undoubtedly the long-hoped-for panaceas for the several ailments they are reputed to cure. All creation seems ransacked for something novel, and a lot of professional satellites hasten to test the innovations and then laud them to the skies. I bit at a good many of these once, but I found them simply inert, very few ever found their way into our officinal list; and I noticed that the same henchmen in different parts of the country hurried to give certificates in favor of everything thus brought forward, and I stopped trying to keep up. I pity the patrons of these certifiers, who are necessarily always in the attitude of being subjects of pure experiment. And my advice to the juniors of the profession is to skip the literature of new remedies to be found solely in the advertising columns, and read that coming from experimenters of note in the *body* of the journals only. And, even then, I regret to say they are not wholly safe, for the names of some who stand in eminent positions are nowadays appended to the nostrums heralded abroad.

What next? Well, we find legions of malts, malt compounds and malt variations (as maltolein, we will say). Each is "*the* only true and reliable," and the others are wholly valueless impositions. Now malt is a good thing, a valuable remedy often, and it is something the doctor can not make for himself; it requires apparatus for the purpose, and is a legitimate product. I find no fault in this alone, but some of the makers have secret devices or processes they claim, resulting in better malt than any one else can possibly produce. Now this is palpably a fraud. We all know that malt is malt, and, when pure, can not be bettered as malt. It must be changed to something else, or left simply malt. And, then, the compounds. Why not let the prescriber add his pepsine, pancreatine, cod liver oil, iron, hops, strychnine, etc., when he wants it. There is no excuse for all these modifications except that the dealer aims at securing a proprietorship, and, by extensive advertising, the encomiums and patronage of physicians. I may say, in this connection, the same things as to pepsins, pepsin compounds and variations; as to peptones; to cod liver oil and compounds; to modifications and substitutes of cinchona products which are officinal; to all the various forms and compounds of hypophosphites; and to some other things. I have neither leisure, inclination nor space to go over all this ground in detail; but with regard to nearly all of the foregoing, I see no satisfactory reason for having our prescriptions formulated by manufacturers, and think we would do best to keep within the pharmacopeia except as we extemporize combinations to suit different cases of different phases of the same case. Any other course certainly tends to degeneration and routinism.

Another large class of proprietary articles consists of infant foods, and diet for invalids. It seems to me that, outside of the cities, there is no reason for using any artificial manufactured foods like these, and I even doubt if in the cities themselves better foods can not be made when required. Some of them are secret preparations, and must be used by the physician on trust blindly; and most of them are openly advertised among the laity and sold over the counters to any who wish to buy.

Thus far, though I mildly object to the classes aforementioned, I have noticed the least offensive articles. Next we come across a lot of *compounds* of good drugs in every-day use, and without any claim to secrecy, but *under* high-sounding names—and thus we find our "ready-made" cure-alls. I will here give, not the actual names advertised, but similar ones, as specimens. We have a rheumaticina, "a combination of salycine, salicylate of soda, alkalies, opium and colchicum, admittedly the best and most efficient anti-rheumatic remedy yet devised." Does not that sound amazingly like certain patent-medicine utterances in almanacs and the press? But wait. There are plenty more yet to come. Here is dyspeptina, and teethina, and asthmaticina, cystina, nephrina, etc. All have very fair formula, but any advanced medical student could study up as good. There is absolutely no excuse for their existence, yet they thrive by patronage of the profession, aye, and I even see distinguished chemists' and professors' names used for reference. Then we come across chloridio—"the finest alterative," composed of three or four powerful alteratives combined in an unscientific and unnecessary manner, where either one would do as well or better by itself. Hypnotico—"the anodyne *par excellence*," making a man sleep better and wake more refreshed than if he was well and took nothing (?). Farther on I discover a digestive mixture, which "is the most efficient and powerful food solvent in a liquid form yet presented to the profession. It contains the *digestive principle* in the purest state, combined by our new process, which insures its activity. Is quicker in action than pepsin itself." Next I see unguentum eczemum—"the best known remedy for eczema," and no formula offered. Of course, it suits equally well all stages of the eczematous process. Then comes "the most important therapeutic agent ever presented to the profession, for the treatment of the FEMALE REPRODUCTIVE ORGANS" (a rather comprehensive remedy, you see), all in italics, and composed of the *active principles* of seven vegetable drugs, requiring a whole page to sing its virtues. I find a second similar compound, taking another whole page elsewhere, and the advertisement winding up thus: "No stronger evidence was ever offered in favor of any medicine in the world, and if human testimony proves anything, it proves this to be the most reliable remedy ever offered to the medical professlon."

Pursuing our investigations still farther, I find the following: "The Oldest Medicine in the World. Nature's Own Cure. Forms the most valuable and sure remedy for the certain cure of consumption, asthma, bronchitis, hay fever, and all chronic lung diseases. Is absolutely a specific and a certain cure for coughs, colds, croup, sore throat, diphtheria, and all bronchial affections. We have hundreds of testimonials from living persons, who have taken these remedies and now enjoy sound health. Circulars mailed free. The name and address of persons who have taken and used these remedies will be cheerfully given." To this is added a supplementary list of rheumatism, sprains, neuralgia, etc., cured by it; especially, I presume, the latter. Next come several syrups, elixirs and cordials for constipation, none of which are any better than dozens of remedies in regular use. Then some *concentrated* tinctures of divers kinds, and some cod liver oil, claiming to be "five times as strong as pure cod liver oil." Both of these latter concentrations are possibly obtained by compression under a pressure of several atmospheres, otherwise I fail to comprehend the last assertion. Following these, still I find some asthma cigarettes; an *electric* brush of pure bristles (?), branded on its back: "The germ of all life is electricity," and "warranted to cure nervous headache in five minutes! bilious headache in five minutes! neuralgia in five minutes! prevent falling hair and baldness! cures dandruff and diseases of the scalp! promptly arrests premature grayness! makes the hair grow long and glossy! immediately soothes the weary brain!" Lastly, in one journal, and that the organ of a medical college, too, I find a whole page of Harter's Iron Tonic, with six displayed testimonials from persons signing M. D. after their names. And yet Harter's Specific Company is regularly advertising patent medicines in all the leading newspapers of the day, and issues a free almanac.

These are by no means all that I found of this character, but they are enough, and more than enough, to punctuate and give force to your words, "Advertising them in a very reckless manner," and "It is time a halt was called." I am well aware that in some instances the business part of our journals is not under the control of the medical editor; and the former being run with a view solely to the profit of the publishers, accounts for the appearance therein of such advertisements. But this is not the case every time; and, in any event, it shows a tendency not at all gratifying to the conscientious practitioner. It shows that, as a profession, we are, like Sinbad the sailor and his old man of the sea, hoisting an incubus on our backs neither useful, nor ornamental, nor easy to shake off. We are patronizing these things, else they would not multiply so fast and wax so fat financially. Why, one of the advertisers, I noticed to-day, maintained a free hospital of several score of beds wherein to test the article manufactured. This, of course, out of the profits of the business. All of them flood us with books of formulæ (many of them being elegantly gotten up), or samples, or explanatory documents, and other printed matter, and if we would believe all that these documents allege, our business as physicians would materially simplify itself. We could then fill our shelves with bottles, number these in their order like Humphrey's Homœopathic Specifics, sit on our dignity, give No. 10 for typhoid, No. 125 for paralysis, No. 23 for amaurosis, and so on *ad infinitum*, never lose a patient, live easy and peacefully, and finally retire in extreme old age, because with our specifics we could not die.

Mr. Editor and kind reader, I lay the picture before you, drawn from reality and not mere fancy. All the quoted advertisements were to-day actually selected from standard professional periodicals; some received favorable editorial mention also, and I echo, in the light of these facts, the sentiment, "It is time a halt was called."

Michigan State Board of Health.

Reported for the CINCINNATI MEDICAL NEWS.

The regular quarterly meeting of the Michigan State Board of Health was held in the office of the Board at Lansing, Mich., July 8, 1884, the following members being present: John Avery, M. D., of Greenville, President; C. V. Tyler, M. D., of Bay City; Henry F. Lyster, M. D., of Detroit; J. H. Kellogg, M. D., of Battle Creek; Victor C. Vaughan, M. D., of Ann Arbor; Arthur Hazlewood, M. D., of Grand Rapids; and Henry B. Baker, M. D., Secretary.

The Committee on examination of text-books on Physiology and Hygiene, with special reference to alcohol and other narcotics, reported, after which the following resolution was adopted:

Resolved, That while we cannot recommend without qualification any of the books presented to this Board for examination, with the exception of those already acted upon, on account of numerous and important errors and omissions, the following works seem to us to be admissable for use in the schools, although we consider it important that the errors referred to should be eliminated as speedily as possible, and that without such correction none of the works named can receive the entire approval of the Board.

1. Physiology and Hygiene. By J. C. Hutchinson, M.

D., LL.D. New York: Clark & Maynard, Publishers. Edition of 1884, with Supplement on Stimulants and Narcotics.

2. The Laws of Health: Physiology, Hygiene, Stimulants, Narcotics. By J. C. Hutchinson, M. D., LL.D. New York: Clark & Maynard, Publishers.

3. Hygienic Physiology, with special reference to the use of Alcoholic Drinks and Narcotics. By J. D. Steele, Ph.D. A. S. Barnes & Co., Publishers. New York and Chicago.

4. Lessons on the Human Body: An Elementary Treatise upon Physiology, Hygiene and the effects of Stimulants and Narcotics on the Human System. By Orestes M. Brands. Leach, Shewell & Sanborn, Publishers. Boston and New York.

5. First Lessons in Physiology and Hygiene, with special reference to Alcoholic Tobacco, and other Narcotics. By Chas. K. Mills, A. M., M. D. Philadelphia: Eldredge & Brother.

6. Elements of Physiology and Hygiene. By R. T. Brown, M. D. Van Antwerp, Bragg & Co. Cincinnati and New York.

7. The Eclectic Physiology, for use in Schools. By Eli F. Brown, M.D. Van Antwerp, Bragg & Co., Publishers. Cincinnati and New York.

The Secretary presented a report on four outbreaks of cheese poisoning in Michigan during May and June, namely, at Middleville, Barry Co., Jerome and Jonesville, Hillsdale Co., and Big Rapids, Mecosta Co. All persons who ate of the cheese were taken sick (in all about one hundred and sixty-four prsons), with the same symptoms, i. e., pain and burning sensation in stomach, intense vomiting and purging, feeble pulse, cold extremities, and tendency to collapse. All finally recovered. The cheeses were ordinarily good looking samples, but when cut or broken a liquid oozed into the pores. In each case the cheese was made at the factory of G. B. Horton, Fruitridge, Lenawee Co., Mich.

Dr. V. C. Vaughan, Committee on Foods, also read a report on cheese poisoning. At the request of the Secretary, he had visited the factory in Fruitridge, and had analyzed specimens of the cheese. Everything about the factory appeared to be scrupulously clean, and nothing in vats, cans or surroundings offered any explanation of the cause of the poisoning. Analysis showed no arsenic, copper, lead, iron or other mineral poison. When the cheese was cut or broken a whitish liquid oozed into the pores, and in the liquid microscopic organisms were detected. The liquid was very strongly acid. For more than 100 years the attention of the scientific world has been drawn to the subject of cheese poisoning by repeated outbreaks of this sort in this country and in Europe. Much has been written on the subject, and many investigations carried on, especially in Germany. It has been variously ascribed to diseased milk, decomposition and the development of certain fatty acids, etc., but we do not yet know what makes the cheese poison. The manufacturer said the cheese which produced the ill results was all made between April 26 and May 26, 1884. It was made in the same manner and with the same care as other lots which had given no cause for complaint. Good cheese is only very slightly acid, and slowly reddens blue litmus paper. The poisonous cheese was intensely acid, instantaneously reddening blue litmus when the paper was applied to the freshly cut surface. This test for poisonous cheese appears to be practicable. The blue litmus paper could be applied by any grocer to each freshly cut cheese. If the litmus paper is instantly turned red by the liquid which oozes into the pores, the cheese is to be suspected as poisonous. Dr. Vaughan's report will be published in the next annual report of this Board.

The Secretary reported that small-pox was brought into Rose Lake township, Osceola Co., Mich., June 9, 1884, by a German immigrant, who, with his wife and three children, landed in New York, June 4, by steamer "Weser," "Weiser" or "Wieser." The emigrant says that on the passage over there were on that vessel three deaths from small-pox and several cases that recovered. The immigrant was taken sick June 13, and was attended by Dr. Bettes, of Le Roy village, in the adjoining township of Le Roy, who could not know the true nature of the disease till the eruption took place, soon after which Dr. Bettes himself came down with the disease, and has since died. The health authorities of Le Roy village had neglected to appoint a health officer, as the law requires, because they thought they would "save a health officer's salary by doing without one." Dr. W. J. Law was then appointed health officer, and he seems to have done very efficient work, as did also Mr. Bryan Monaghan, health officer of Rose Lake township. The townships of Rose Lake and Le Roy united in the construction of two hospitals, which were built June 29. At last report there were ten cases in the hospital, five cases at Tustin, and one at Cadillac.

This outbreak is another illustration of how Michigan and the Northwest suffer from the lack of a careful immigrant inspection service, such as was planned by the National Board of Health, and for a time carried on, but discontinued for want of an appropriation.

The chairman of the special committee appointed to examine the sanitary condition of Washtenaw and Jackson County jails, read their reports, which were ordered printed in the annual report of the Board for 1884.

Owing to the spread of Asiatic cholera into Europe, and the liability of its introduction into this country at any time, it was decided to issue a circular to local board of health on the prevention and restriction of cholera.

The third edition of 30,000 copies of the document on the Restriction and Prevention of Diphtheria being nearly exhausted, it was decided to revise it and issue a fourth edition of not to exceed 25,000 copies, for general gratuitous distribution in Michigan.

The work of the office in compiling reports of sickness, meteorology, and of proof-reading, correspondence, etc., has continued as heretofore.

A compilation of the Public Health Laws of Michigan has been printed and is nearly ready for distribution.

The document on Restriction and Prevention of Scarlet Fever has been revised and 20,000 copies printed for gratuitous distribution. Proof on most of the Annual Report has been read, and it is now printed up to page 224.

A second demand for the return of names and addresses of health officers has been made on delinquent townships, cities and villages. Addresses of about 1,050 health officers have been received and recorded. As fast as addresses of health officers for 1884 are received, there are sent to each such officer enough copies of the revised circular on the work of health officers and local boards to supply each member of the Board with a copy. Documents on the restriction and prevention of contagious diseases are sent with this circular, and a blank for notification to this office of an outbreak of a dangerous communicable disease. During the quarter about 120 letters and 8,000 documents have been sent to local health officers where contageous diseases have been reported present, the documents being for general distribution among the neighbors, who it is believed are more likely to read them carefully at such times.

The next regular meeting of this Board will occur Oct. 7, 1884, instead of the second Tuesday in Oct., which would be its regular time.

Reasons for Believing in the Contagiousness of Phthisis.

BY W. H. WEBB, M. D.

Read before the Philadelphia County Medical Society, June 11, 1884.
Reported for the MEDICAL NEWS.

THE germ theory of disease is by no means a new theory. One of its earliest advocates was Athanasius Kircher, a learned German Jesuit, who lived in the early part of the seventeenth century; and about the same time lived Robert-Boyle, an eminent Irish philosopher, who believed in the truth of this theory. The renowned Linnæus, the father of botany, was not only an ardent investigator of its claims, but published several memoirs in its support. In the latter part of the last century it had such supporters as Sir John Pringle and Dr. Wm. Farr, and in the early part of the present century it had such advocates as Sir Henry Holland, Schonlein, Cagniard de la Tour, Schultze, and many others.

To the illustrious Pasteur, however, belongs the distinction of having done more than any of his predecessors to develop this intensely interesting and important subject, and of presenting its truths in such a way that they have become of immense practical use to mankind. His indefatigable labors, the ingenuity and exactness with which he pursued his investigations, the practical demonstrations he has given of the utility of the truths he has discovered, are well known to men of science. This special field of investigation is now occupied by many able and accurate observers, and, as a result of their labors, the present generation may witness an epoch in the history of medicine, startling in its brilliancy of grand achievements in subjugating disease; when men shall hold in their hands effective weapons and be enabled to erect impassable barriers before those destructive scourges —cholera, yellow fever and tubercular phthisis. But two years ago the medical profession was startled by the announcement made by Robert Koch, of Berlin, that "Tuberculosis is a specific infectious disease, caused by a specific micro-organism, the bacillus tuberculosis, which constitutes, in fact, the tubercle virus." Truly, since the time of the immortal Jenner we have not had such a remarkable statement, nor one so weighty in its import! There is no reason to wonder why medical and other scientific bodies, the world over, have this subject so frequently under consideration.

The work of Dr. Formad, of this city, as well as the work of all other investigators in this field of research, has seemed to confirm the statements of Prof. Koch. There is nothing more seductive than speculation regarding the outcome of their future labors, of the truths which shall belong to those who will follow us, and of the beneficent power these truths shall arm them with.

But it is only hard and intelligent work that can make this future a reality, and I am persuaded that the frequent discussions by our Society of points connected with the study of germs as a cause of disease, will do much good by stimulating the efforts of those members who are engaged in such investigations, and by enabling others who are interested in this work to make suggestions or offer criticisms that may be of some advantage to them.

In my paper this evening, I purpose to limit myself to answering in the affirmative, a question of great practical importance propounded by Dr. Formad in his recent paper, namely: "Is Consumption Contagious?" Dr. Formad is disposed to answer it in the negative, and offers to you the names of a number of eminent physicians who apparently lend strength to his doubts concerning its contagiousness. For a number of years I have carefully studied this disease, and, as a result of my observations, I am firmly convinced that it is contagious. Indeed, the contagious character of the disease is generally believed in, and is taught by the most able and experienced clinicians of our day.

When a disease is unusually prevalent, it is very natural to suppose that it may be due to contagion or infection. Think, for a moment, of the ravages from tubercular phthisis. It exists in all climates, it affects all classes of people; it respects neither age nor sex. It claims about twenty per cent. of the death-rate of the civilized world. The mortuary lists of our own city show a percentage in its favor amounting to about fifteen and a half, and the native population of those latitudes most frequented by consumptives succumb to this dire disorder as frequently as people do elsewhere! except, perhaps, Colorado. Is this to be accounted for by heredity or pre-existing lung trouble? If the disease was due to inheritance alone, it would have become obliterated generations ago by a species of natural extinction, ; but the disease is increasing in a greater ratio than the increase of population, which shows that the disease *must be acquired afresh.*

Dr. Formad, in his valuable paper, makes the statement that, ''according to the observations of the most prominent clinicians who have paid special attention to this matter, there is not a single authenticated case of tuberculosis, as a result of contagion, on record." This assertion is not tenable, since cases are recorded by C. B. Coventry, S. G. Morton, Daniel Drake, Tauchard, H. G. Bowditch, Vialettes, Beregeret, Hardy, Seux, Condie, L. Tait, Stevens, Bernard, Chamontin, Herman Weber, Flint, Sr., Holden, Reich, Da Costa, Booth, Bryhn, and many others. Is this not sufficient evidence that such cases are recorded? The fact that some of these names are better known than others, does not militate against the honesty and care exercised by the less distinguished observers and their deductions, and are justly entitled to a fair consideration. Obscurity does not, by any means, imply ignorance, lack of ability, and keen perception.

Dr. Formad also asserts that, ''among scores of experienced men who deny thus the contagiousness of tuberculosis, it is sufficient to mention the names of Virchow, Recklinghausen and Stricker, in Germany; Gull, William Watson, Paget, Humphrye and Richardson, in England; Bennet, in France, and Hiram Corson and Trail Green in our midst—all men of close observation, with ripe experience extending over from thirty to fifty years." I also take exception to this statement, for Drs. Corson, Bennet, and probably many others mentioned in Dr. Formad's list, if heard from to-day, would not subscribe to this declaration, which finds fewer supporters than one might imagine to be the case. Some time ago I received a letter from Dr. Corson, in which he said: Long since I advised my patrons not to have young daughters, who were compelled to wait on a consumptive mother, sleeping in the same room with the patient." This certainly shows that while Dr. Corson may not be a thorough convert to the contagion theory, yet he thinks it prudent to resort to preventive measures, by securing as much separation as possible of the well from the phthisical individual. And Dr. Bennet, who is also quoted by Dr.

Formad, records the following typical case of contagion in his work:

"A strong, healthy, well-made husband, age twenty-seven, with no hereditary or constitutional taint or weakness, came over from Australia—a four months' journey—in the same cabin as his wife, who was in the last stage of suppurative phthisis. She died soon after her arrival in England, and he came to Mentone that winter a confirmed consumptive, dying himself subsequently. He was perfectly well when he stepped on board of the vessel at Australia; but in a small, confined cabin breathed for months an atmosphere loaded with pus particles thrown out of the suppurating cavities of his wife's lungs, possibly to his destruction."

After referring to the inoculating experiments of Buhl, at Munich, he makes the following statement: "But in the face of the results that these researches have brought to light, *it seems to me impossible to deny that it may be communicated to the healthy by breathing constantly air saturated with the purulent secretions of advanced phthisis.* This is an all-powerful argument [I am still quoting Bennet] for the free ventilation of rooms occupied by the consumptive, for the sake of those who attend them and live with them, as well as for their own. In a confined atmosphere they probably poison themselves by their own fœtid breath, and extend disease to the healthy regions of the lungs." Can this be used to confirm the belief of Dr. Bennet in the non-contagiousness of phthisis, or is it evidence in support of the position I take? This is but one of many similar cases quoted by various authors, who are scarcely willing to commit themselves while the evidence is so striking, that they, like Dr. Bennet, feel constrained to express the possibility of a contagious element in their causation.

"Whatever has happened, is capable of happening again; the only question relates to the condition under which it happens;" and what are the conditions under the present circumstances? This is exemplified in the following case, very similar to the one narrated by Dr. Bennet:

"A lady, about thirty years of age, the wife of an officer in the army, left Calcutta with her husband to go by sea to Southampton. At the time of leaving Calcutta *she* was in *robust health*, whilst he was in an advanced stage of consumption. They had a single close cabin, and she performed all the duties of a nurse for her husband. The weather was stormy, and the hatches were more than once battened down. The husband died off the Cape, and was buried at sea. About three days later the lady arrived at Southampton. I was called to see her professionally. I found her with both lungs stuffed with tubercles; and she died in about six weeks afterwards. The painful duty was cast upon me of acquainting her with her condition, which I did, when she said: 'Impossible! I was never better in my life than when I stepped on board at Calcutta.' I knew the lady well, and all her family, and there was no hereditary predisposition. In this case, all the necessary conditions for the propagation of the disease were fulfilled; *a high temperature* in a close, ill-ventilated cabin, where the exhalations from the diseased lungs were inhaled by the sound lungs, with the well-nigh inevitable result I have described."

Were these the only cases, we would think our point sustained. There are, however, but few physicians in our large cities who can not recall cases in which they would rather commit themselves to a belief in the contagiousness of consumption than to ascribe its cause to anything else.

The following cases, due to contagion, have been communicated to the writer and are worthy of record.

Dr. J. Solis Cohen has kindly furnished me with the following case:

"More than ten years ago Dr. H., of this city, sent me a young female from the country in advanced phthisis, much emaciated, with aphonia from pressure of consolidated apex on right recurrent nerve. I gave her little encouragement and sent her home with some general instructions. Some two years later she called on me, asking me if I remembered the last words I said to her; I did not, but she repeated them: 'Your best chance is to take cod liver oil, live on it if you can, eat it with your bread, with anything.' She went home much depressed, became bed-ridden for a number of weeks. She subsequently married, her husband acquired phthisis and died of it, and she was still living three or four years ago with consolidated apices and cicatrized cavities."

Juan B. Mears, of Monterey, Mexico, communicates to my friend, Dr. A. C. W. Beecher, of this city, the following case:

"A woman, suffering from the last stages of consumption, who some year or two before had adopted a girl. The latter's mother, Mrs. H., questioned me about the safety of letting her daughter remain with the afflicted person. I examined the girl and found her strong and healthy, tall and well developed for her age (about sixteen or seventeen years old), without any hereditary predisposition; I told her that I feared no danger to the daughter if she would only take some ordinary hygienic precaution. Well, the old lady died, and a few months afterwards Mrs. H. brought the girl to me, already with an as acute phthisis as I ever saw, and she died, too. Questioning them about the case, they attributed the malady to the companionship of the old woman; they slept in the same bed, ate from the same dishes, breathed the same air, infected probably by phthisical debris. I must add that the people here believe in the actual contagiousness of phthisis."

The following case occurred in my own practice, and is also worthy of record:

October 7, 1880, I was requested to attend professionally Mr. H. F., aged fifty-two years, who had been ill for one year with phthisis. He died September 23, 1881. During all of Mr. F.'s illness he was most carefully nursed by his wife, who occupied the same room constantly; she contracted phthisis, and died August 3, 1882, aged fifty years. Mrs. F.'s mother died twenty years previously of phthisis; her father died at the age of fifty-six of cancer.

I may be permitted, in view of the few eminent names offered by Dr. Formad in support of his theory, to mention the names of a number of men of equal practical experience in medicine, who have recorded their belief in the contagiousness of the disease: Aristotle, Galen, Riveris, R. Morton, Baume, Cullen, Herberden, Darwin, Coventry, S. G. Morton, Bright and Addison, Dunglison, Andral, Drake, Sir T. Watson, Copeland, Dickson, W. Budd, L. Tait, Walshe, Madden, de Mussy, H. Weber, Holden, Da Costa, Rühle of Bonn, Lichtheim, Klebs, Bollinger, Flint, and many others could be mentioned.

Dr. Formad lays great stress upon the fact that the medical officers and attaches of the Brompton Hospital have not contracted phthisis. This would be the last place in the world to look for the disease as the result of contagion, for every one knows who has visited that hospital, that hygiene and regimen are most scrupulously carried out to the highest point of excellence known, the nurses and other attaches being on duty only a portion of the twenty-four hours, and when on duty are not constantly in the wards. Compare this with the manner in which patients are cared for in private practice. The nurse, a member of the family or friend of the stricken individual, generally occupies the same room, day and night—more especially in the advanced stage of the disease, and the hygiene and regimen do not, except in a few instances, receive proper attention ; in some cases it is wholly neglected ; every crevice about the windows, and sometimes even the key-holes, as I have more than once seen, are plugged up for fear a little fresh air might get into the room and the patient "take a cold."

As a rule, the nursing of the phthisical in private practice is unskilled, and the circumstances under which the nurses perform their office render them more liable to fall victims to the disease. Cases of phthisis due to contagion *have*, nevertheless, occurred at Brompton Hospital, for Walshe makes the following statement in regard to his assistants:—

"Curiously enough, of the first three clinical assistants I had at Brompton, two died of phthisis, and the third left the establishment with slight hæmoptysis, cough and chest uneasiness. The latter is now (1871) in perfect physical condition, one of the former had clearly been affected before he came to the hospital, the other was a model of sturdy health when he took the office."

He says further:—

"* * * I must confess my belief in the reality of such transmissibility has of late years been strengthened. I have met with so many examples of the knd, that 'coincidence' becomes itself an explanation difficult of acceptance. I have besides, in three instances, seen a robust husband become distinctly and actively phthisical, as shown by general and local symptoms and physical signs, and on the death of his phthisical wife, whom he had closely tended, fell into the retrogressive stage of the disease, and ultimately practically recover."

"Hereditary influence in producing the disease is not as great as many believe, and all efforts have failed to prove, by statistics, the existence in a majority of the phthisical of an unfavorable tubercular family record. Walshe says: "The final conclusion flowing from the analysis of the family history of 446 persons is, *that phthisis in the adult hospital population of this country is to a slight amount only a disease demonstrably derived from parents.*" "Of 374 cases occurring in old women at the Salpetriere Hospital, reported by Piorry, 78 died without presenting any traces of tubercle, although their parents died from that disease." Dr. Cotton, who analyzed 1000 cases at Brompton Hospital, found only 365 cases in which hereditary taint could be proved; Scott Allison's observations, at the same institution, show, in 603 cases, a hereditary influence in but 19. Walshe concludes, after most careful investigation, that not over 26 per cent. can be traced to hereditary taint. How then are we to explain the cause in the remaining, we will say, 60 per cent.? Are they to be traced to pneumonias, pleurisies or kindred diseases? Or are we to conclude that there is a *specific poison* to which they may be exposed which produces this disease? I think there is, in fact there must be, such a specific poison.

I will here give a hypothetical case, in order to show *the fallacy of hereditary transmission of disease:* A. B. is stricken with tuberculosis, the family are amazed at the announcement of the fact by the attending physician, and they state that the parents and grandparents are still living and enjoying good health; the family trace back to the third generation and find that a great grandmother died of phthisis, and this gives some satisfaction as to the disease being in the family. And if we go back three generations to find the cause for tuberculosis, why not go back four or five if nothing is found in the third, or failing to find it in these go back as far in the family history as tradition may extend, and finding one ancestor who *probably* died of phthisis, to conclude that therefore the case we see is transmitted from that ancestor. This, to my mind, is absurd, and yet I know the tendency of family and physician (particularly the latter) to look for this, in the transmission, rather than in an acquirement in the individual, *per se*. It is not sufficient to declare hereditary transmission when even some of the children of phthisical parents, while partaking of their delicate constitutions (that is delicate in figure and lacking ruggedness) will live to good round ages and perish from other diseases.

I do not assert that exposure to the poison will produce the disease in all individuals any more than other zymotic poisons will, for there are many who are for the time at least insusceptible to their action, and this is owing to the fact that they present no proper nidus for the poison-germ, yet from this we are not to argue that the germ itself is less potent to an individual susceptible to it. The belief in the contagiousness of the disease is as old as its literature itself. As long ago as 1668, Riveris, who for more than twenty-five years was professor of physic in the University of Montpellier, in speaking of the causes of phthisis, wrote as follows: "Moreover, there are external causes, as contagion, which is the chiefest; for this disease is so infectious that we may observe women to be infected by their husbands, and men by their wives, and all their children to die of the same, not only from the infection of their parents' seed, but from the company of him that was first infected. And this contagion is more easily communicated to those that are of kin, wherefore it is not safe for a brother or sister to enter into a chamber, for the *miasmata* or infective vapors which come from their lungs and infect the whole air of the chamber, and being drawn in by others (especially if they are any way disposed to the same disease) beget the same disease in their lungs."

Not only among the members of our profession, but among all classes of people, the belief is prevalent, especially in Italy, Southern France, Spain, Portugal and Mexico. At the Canary Islands they look upon consumptives as little better than lepers, and they are kept in a species of quarantine, being subjected to many vexatious restrictions in regard to their intercourse with the indigenous population. This would serve to show that there must be some well-grounded reason for such belief, and it ought not be regarded as superstition.

It is impossible to comprehend how a disease, specific in its character and definite in its course, can be transmitted from parent to child; how the germ comprising the complicated organism of man could develop from the microcosm into a highly complex creature, carrying with it the elements of destruction as a part and parcel of its structure. Such teaching is opposed to all known biological facts, and it seems that writers have fallen into the fashionable professional rut in searching for the etiology of many diseases, and in none more deeply than ascribing hereditary transmission, when in reality they should say an hereditary predisposition to certain diseases.

There are a number of authorities who hold the opinion that phthisis is transmitted from parent to offspring, and among the number is Sir Wm. Jenner, who states—"That tuberculosis is transmitted from parent to child, is one of the established facts in medicine." This is absurd. If the disease is transmitted why does it remain latent for so many years? There is no such thing as the direct transmission of a tubercular virus from parent to offspring, this has been shown by such pathologists as Guizot, who, "In four hundred post-mortem examinations of the bodies of new-born infants, failed to find a single deposit of tubercle, and Gluge asserts that there is no born tubercle." Tuberculosis to-day is the same, and manifests itself in the same manner that it did centuries ago. It reveals the same pathological appearances in one case as in another, and maintains its specific character under all circumstances. How then is it possible to harmonize known facts with the doctrine of hereditary transmission, when diseased parents and the east wind are equally effective in producing the same specific result? That constitutional peculiarities are not pathological, needs no argument; and therefore our faith in their transmission need not be put upon the stretch in acquiescing in this belief. Nor is it to be denied that constitutional peculiarity may be acquired and still leave the body in a physiological condition. As an instance: Most persons have a transmitted constitutional condition of body that may be infected by the virus of small-pox; this habit of body may be so altered, by vaccination or otherwise, that it cannot be infected, and still leave the body in a physiological condition. The susceptibility was transmitted and it is destroyed. On the other hand, the susceptibility may be acquired instead of being transmitted, so that he who was born constitutionally protected may become jeopardized, if exposed to the infecting influence of the small-pox germ. Even in the propagation of this highly infectious disease two distinct factors are engaged, between which there is a perfect coadaptability, if I may so speak, for, when they are brought together they combine to bring about a certain result, uniform in appearance and constant in character.

We have a marked illustration of the fact that certain modified conditions of the parents are not transmitted to the offspring, in the case where parents have been vaccinated and yet there is no protection from small-pox in the child. This has been aptly compared to the soil and the seed. The earth could not bring forth fruit without the seed, the seed could not germinate and reproduce itself without the soil. The soil in order to be productive should be fertile, and the seed should embody within itself the elements of life. The condition of the body, like the condition of the soil, determine its efficacy as a factor and its relevancy to a specific result, when joined to that other factor, the seed or germ, in the production of disease. The body is the soil for disease producing germs. If the body does not offer a suitable nidus, the seed planted therein could not germinate, grow, bud, bloom or fructify. This peculiar condition of various parts of the animal body, which offers a suitable soil to disease-producing germs is familiarly known in medicine as *predisposition.* It is that which is transmitted from parent to child—the predisposition to certain diseases, and not the disease itself. A tuberculous parent may transmit this soil, this habit of body, this *predisposition*, to his or her offspring, but can not under any circumstances at the same time transmit the seed in a dormant state already planted in that soil. Dissections, as already stated, have not revealed tubercles in the new-born. They may be born with many physical imperfections, but never with any trace of tuberculosis. The individual must be subjected to disturbing extrinsic causes before there are any evidences of tuberculosis, and when such manifestations do occur, they are of a peculiar and constant kind. One case of tuberculosis is as much like another as one case of small-pox is like another of that disease. It would indeed be a strange coincidence, and one that could not be accounted for by any telluric or atmospheric influences so variable in their nature and uncertain in their operation. When we observe a constant recurrence of symptoms and pathological changes in a series of cases, we naturally conclude that a specific cause is operating upon a peculiar condition of body to produce such a uniform result. It is evident that the offspring of phthisical parents sometimes escape the disease, for M. Pidoux states that: "Not over twenty-five per cent. of those born of consumptive parents themselves become phthisical."

The predisposition is not only inherited, but is also acquired by the offspring of healthy parents; thus parents of non-phthisical children may themselves acquire the disease under conditions favorable to its development. It is not contended by those who believe in and know the fact of the contagiousness of phthisis, that the disease is thus contracted as frequently as other infectious or contagious diseases are acquired; but, I am free to say, however, that there is far more danger to be dreaded from nursing the phthisical in private practice, than there is from nursing cases of typhoid fever. In the latter disease, the "*materies morbi*" reside in the excreta, and by cleanliness the infectious element is promptly removed and the danger lessened; this is not the case in phthisis, for in that disease the "*material cause*" resides in the effete matter constantly being thrown off from the lungs of the stricken individual, especially in the advanced stage of the disease. This has been proved by Ransom, who found the bacillus tuberculosis in the air of a room containing several advanced cases of phthisis. Dr. R. Charnley Smith, detected them in a respirator worn by a phthisical patient, and Dr. C. T. Williams, by an ingenious method, has found the bacillus in fair abundance in the extracting flues at Brompton Hospital. The tubercular bacillus is characteristic, and can readily be discriminated from all other bacilli. It has been found in all the tubercular lesions of the organs and tissues of the body of the phthisical, including, of course, the osseous system and its medullary substance. It has also been found in all the secretions and excretions of organs similarly affected. It is a well-known fact that phthisis prevails to a great extent in most of the European armies, and this prevalence can only be accounted for by the contagious character of the disease. As an evidence of this, it might be stated that Surgeon General von Lauer, of the Prussian Army, has recently issued a circular to the medical officers, directing them not only to isolate the phthisical from the non-phthisical, but *that special means be taken for the disinfection of the sputa in tuberculous cases.*

"Sir Wm. Wild, in the Irish Census Reports for 1851, states that in the years 1847, '48, '49, there died of phthisis, in Ireland, 66,000 persons, or 22,000 per year." This occurred before the tide of emigration to this country set in. So frightful a mortality can only be attributed to the crowding together of people obliged to breathe an atmosphere loaded with the germs of this disease.

It is well known that the red, as well as the white blood-corpuscles sometimes leave the vessels and migrate through the adjacent tissues. They have even been seen to enter the vessels. These corpuscles, as is also well known, are from the $\frac{1}{3200}$ to the $\frac{1}{4000}$ of an inch in diameter. How much easier would it be for the *tubercle bacillus*, which is generally described as varying in length from the $\frac{1}{12000}$ to the $\frac{1}{4000}$ of an inch, and having a breadth of $\frac{1}{5}$ of its length, to escape from or enter the blood-vessels? It is through the medium of the lymph and the blood that these bacilli are carried throughout the system. The tubercle is developed according to, and is governed by its own laws, as are the eruptions of small-pox, or the formation of false membrane in diphtheria, and who will deny that there is a *specific contagium* in the blood, in cases of these diseases, before such local manifestations occur? I hold that tubercle, as we know it, is never a primary product; it derives its origin from the action of a pre-existing *materies morbi.* The lymph or the blood carries the morbific material throughout the body, and certain organs attempt to eliminate the poison, but failing to do so become themselves the ground in which the poison accumulates. Why certain organs are more prone than others to become the receptacle of these deposits, I will not here attempt to explain. Perhaps the peculiar structure of the lungs, and the fact that all of the blood of the body must and does pass through them in great quantity and with great velocity, may be one reason why they are apt to be the seat of tubercular deposit, the softening and breaking down of which is the result of an inherent irritation of the *materies morbi*; this being the foreign matter the lungs rebel against the presence and make an effort to cast it off. More or less perfect parallels are seen in the exanthems, where the skin becomes the eliminating organ. In diphtheria, where elimination is by the mucous membrane, and in small-pox, scarlet fever, measles and erysipelas, diseases each having its own peculiar and characteristic eruption, each respective disease being due to the presence and action of a peculiar characteristic *materies morbi* prior to the appearance of local symptoms. In the attempt at elimination or resistance to the invasion of these poisons we have the lesions so characteristic of them generally recognized as belonging to the disease. Do they constitute the disease, comprising both its cause and effect? By no means; they are but the expression or effect of the cause, precisely as tubercle in the lung or elsewhere is but the expression or effect of a pre-existing *materies morbi.*

The germs producing these diseases are not diseased germs; they are germs in perfect health as to themselves and are capable of producing disease only where a nidus suitable for their development is found. It seems to me unnecessary to enter into any labored course of reasoning or offer any lengthened recital of examples, further than has been done in this paper. There is still a ring of mystery in the minds of some physicians about this whole matter. But when, in the near future, the smoke and dust have been made to subside by the great workers who are now engaged in this promising field of labor, and when all the avenues and byways are macadamized, so to speak, by their results, then will this much mooted and intricate subject be far on the way to a final settlement, and millions of lives saved annually from premature graves.

So thoroughly am I impressed with the importance of this question, and of the incalculable advantage a thorough understanding of its bearings must be to the members of my profession, that I feel I have not consumed time unprofitably in my effort, however faulty it may be, to set before you the facts which have convined me of the contagiousness of a so fearfully common and invariably fatal disease as tubercular phthisis.

Selections.

St. Louis Medical Society,

REPORTED FOR THE REVIEW.

Excision of the Rectum for Cancer.

Dr. Coles.—Mr. President, I have a specimen here that is interesting, and would have been more interesting some time ago, but I thoughtlessly dropped it into alcohol and it has shrunken up considerably and doesn't look well. It is a case of excision of the rectum for cancer. Some time since a lady came to me from Kentucky and stated that she had been troubled with some disease of the rectum for the last eight or nine months; that she supposed at first it was a case of hemorrhoids and she consulted her family physician and he suggested that perhaps it was a case of fissure. He made an examination in December last and discovered that the disease was epithelioma. At the suggestion of her friends he did not inform the patient of the true condition. Thinking that she was not progressing as she ought, not knowing she had a malignant disease, she became dissatisfied and came to this city and consulted me. I examined her under chloroform very thoroughly, and had no difficulty in recognizing the true state of the case. After making this examination I wrote her physician in Kentucky, and he replied in a very satisfactory letter, saying he had already recognized the disease, but thought it best not to acquaint the lady with the facts, as it was his opinion nothing could be done, except merely in palliation. I deemed it my duty to inform her of the nature of the trouble, and told her that it was feasible to remove it. The disease reached about two and a half inches into the rectum, and was situated mostly anterior and on the left side, extending around to the posterior portion; most of it, however, was on the anterior and left side. The vagina did not seem to be involved; thus by putting one finger into the rectum and the other into the vagina, the mucous membrane of the vagina would slide very easily over it; there was a fissure on the left side which extended into the epithelial growth. About two weeks since I operated and removed two and three-fourths inches of the rectum. The patient made a very satisfactory recovery, and to-day was able to get out of bed. I encountered a good deal of hemorrhage. This operation has been performed a number of times in this country within the last ten years. Up to that time, however, it had been performed very seldom. It was performed many years ago in Europe by Lisfrance, but the results of the operation were not satisfactory, and the operation was described as dangerous, and attended with too much hemorrhage to allow of safe operation, and hence it fell into disuse, until of late years, when Billroth and other continental surgeons operated with marked success. Quite a number of operations have been performed in this country, but the operation is given very brief notices in our works on surgery. Dr. Agnew, of Philadelphia, in his surgery says he considers it a clearly feasible operation, and he has operated once himself; he would always advise the operation where there co-exists four conditions, all of which he considers favorable to the operation; one is where the disease is epitheliomatous in character; second, where the disease is confined to the gut itself; third, where the disease is within reach; and fourth, when the general condition of the patient is favorable to the operation. All of those conditions I thought existed in my patient, therefore I didn't hesitate to advise the operation, to which she consented very readily when she found out the nature of the trouble. The result in this case has been satisfactory so far. Of course there is a possibility that the disease may return; however, the statistics of late years have been very encouraging, indeed. Some of the patients operated on for epitheliomatous cancer have had their lives lengthened four, five, six and eight years, some apparently being cured; of the other cases some have died from the operation, and in others the disease has returned. The number of cases on record in which the disease has returned are so few as to encourage us greatly. The operation is one which at the present day every patient ought to have the benefit of, especially epithelioma, just as in cancer situated elsewhere. In this case I commenced the operation immediately behind the vagina and made my incision down to the verge of the anus and cut directly backwards toward the os coccygis. The most difficult part of the operation was the separation of the rectum from the vaginal wall, which is so unstable that if you have to make a close dissection, as I had to do in this case, although it didn't involve vaginal mucosa, is very difficult. I dissected up about three and a half inches and then amputated the bowel above the disease, having first dissected back the external sphincter, thus preserving it quite perfectly. The stump was then brought down and stitched to the external skin, the sutures being secured by shot. The sutures were removed two days ago, and my patient seems to be doing very well. I put in two drainage tubes, both coming out just back of the anus; I left the dependent portion of the incision open for drainage and the drainage tubes were passed upon each side, both coming out side by side, immediately in front of the coccyx. There was considerable drainage of blood serum after the operation; for the first 24 hours there was a constant trickling from the drainage tubes. At the end of 24 hours one tube came away and the other was taken away. The external sphincter was saved in this case; it was not involved in the disease, and it is very important to save it if you can, because it gives the patient control over the bowels. It is astonishing how rapidly this patient is gaining control over her bowels; to-day she notified her nurse that she wanted an action, and she rolled out of bed on the commode and had a good action. I tried to keep her bowels constipated after the operation, but on the second day she had a good free action in spite of the pretty free administration of opiates. After that I determined to let them alone and they have been moving nearly every day since.

Dr. Prewitt.—I agree with Dr. Coles that those cases ought to be operated upon, and the earlier the better, but sometimes it seems to be an unfortunate circumstance that they are not recognized until they have progressed to such an extent as to involve a considerable portion of the bowel and pass up beyond the point of safety. The patients oftentimes complain of a good deal of trouble about the bowels and doctors prescribe for them, never taking the trouble to examine the rectum. I have repeatedly had patients come to me with epithelioma of the rectum of enormous extent, but which has never been recognized; the patients have not been examined. Somehow the doctors seemed to have a repugnance of that sort of an examination, even in cases where the patients complain of trouble about the bowels. If this trouble is recognized earlier and operated upon, a great many, I think, might have their lives prolonged many years in comfort. It is a fact that cancer occurring in this locality is of a very low malignancy; it is not apt to return if extirpated. Cases have been reported where, after extirpation, they have gone twelve and fourteen years without any indication of returning; they are the most favorable cases for operation, unless it be epithelioma of the lip, which is oftentimes removed without ever returning. I met with a case recently in an old woman of 60 years of age who never had an examination of the rectum made and it was after great trouble that she was induced to submit to an examination. Her bowels had become obstructed to a certain extent by the growth; she often had colicky pains, indicating chronic obstruction, and a very intelligible physician, a member of this society, who saw her, suspected something wrong, and finally induced her to submit to an examination, and this condition of things was discovered. She had a good deal of bleeding from this growth; there was a loss of blood almost nightly. He referred the case to me, and asked what I thought of excision of the rectum. I told him it was the proper thing to do if it was a good case; but on reflection I found that the woman was old and feeble, and it didn't seem to me she would be likely to survive such an operation. In that case I proposed colotomy as an alternative, because of the comfort it would give her while she did live. He concurred with me, and I performed colotomy in the left lumbar region; the parts united, and an artificial anus was formed; more or less fecal matter passed readily enough, but she seemed occasionally to suffer from the growth, and lived not a great while, died simply from exhaustion. In those cases where ecxision of rectum is not advisable, colotomy is the proper operation; it certainly adds to the comfort of the patient and prolongs life; it removes the irritation on passage of fecal matter, and renders the patient much more comfortable. The existence of an artificial anus in the left lumbar region is not such a terrible calamity as many have thought; it is much more readily controlled; pads laid upon the parts and removed whenever there is an inclination to do so by using a special pad. There is no reason why people should have such a terrible repugnance to the existence of an artificial anus; certainly it is preferable to the suffering and distress connected with the growth of cancer of the rectum, and the distress that is occasioned by the passage of fecal matter, etc. Of course it is more readily operated upon in females than in males. In this case it seems it hadn't entirely invaded the vaginal wall, but if it had the doctor would have had no difficulty or hesitation, I suppose, in removing the vaginal wall in order to get rid of it.

Dr. Dean.—In spite of the great fear of the laity of cancer in any other part of the body it seems strange how little aware these people are of the frequency of cancer of the rectum; in fact they very seldom consult a physician at all with reference to that trouble until too late, or the cases are probably treated simply as dysentery or something of that kind. The profession is very negligent in examining these people, and this leads them to consult those who make the treatment of diseases of the rectum a specialty, but quacks as often as honorable specialists. I have seen several cases within the past few years that have been treated just in that way—treated as dysentery and never examined at all unless the patient went to some cancer doctor at a distance. On the other hand, some of these doctors who make the treatment of these ailments a specialty, that is, dishonorable specialists, well knowing the probabilities are not very great that the patient will go to anybody else, and especially after the fees they exact, make all sorts of statements with regard to the case. I had an illustrative case some time since in a man who seemed hypochondriac as regards his own physical condition, who has often told me that he was formerly a walking drugstore. He finally wrote his wife, who was in this city, while he was in Chicago, that he consulted a physician and found out at last his ailment was fissure of the anus. The doctor wanted to treat him at once, but he wouldn't permit him to do so until he had seen his family physician, who happened in this case to be myself. The doctor taunted him by advising him to go to Van Buren, of

New York, if he was not satisfied with his diagnosis. When I examined the man I found that there was no sign of fissure. For fear that I might have been mistaken in the first examination I made a second examination and was perfectly satisfied that there was no fissure and the patient was perfectly satisfied also, and has so remained for more than a year, yet this physician told him that there was a fissure and wanted to operate upon him, that he would have nothing further to do with him without giving him chloroform. Of course he did not want the patient to know just how much he did or how much he did not do, so as to regulate his fee according to the operation claimed. Almost all these cases of cancer of the rectum come to us too late to be operated upon with success. I do not believe that physicians should in these days of refinement of physical diagnosis treat the patient without an examination; we can not possibly know the extent of the trouble or its nature unless we do make an examination. As Dr. Prewitt stated, these are, when taken early, perhaps among the most favorable cancers to remove. They are generally epitheliomatous in character, in the beginning at least, and in these cases almost without exception we may expect favorable results if we see the patient sufficiently early.

Dr. Prewitt.—I met a few months ago a case of fissure of the anus that was certainly very deceptive. It occurred in a woman sixty years of age, who had suffered a great deal, and had great difficulty in getting the bowels moved. On examination I found a deep fissure with an amount of induration around it that led me to suspect it might be epitheliomatous; it was certainly deceptive and very suggestive of malignancy. It was so clearly a fissure of the bowel that I treated it as fissure, divided it freely down to the base, and applied the usual treatment; it got well and the induration connected with it disappeared. I did not cut out any of it and examine it as I might have done, to determine the diagnosis; it healed kindly. I speak of this because it was a case that might readily have been mistaken for epithelioma; there was a larger amount of induration than in any case of fissure that I have seen in my life; and this reminds me that I met only a short while back with a fissure of the bowel in a child not more than three months old, which the mother told me had been present from birth; it was a very decided fissure of the bowel.

Dr. Watkins.—What was the treatment of the fissure?

Dr. Prewitt—I simply painted it with a little oil and iodoform and made it heal from the bottom.

Dr. Meisenbach.—I have a specimen that I would like to exhibit. A week ago it was a very pretty specimen of hydatiform mole; immersion in alcohol has considerably destroyed the characteristics of the growth. A week ago to-night I was called by a midwife; she came in haste, saying she feared she had a case of placenta prævia. When I arrived at the house I found the patient to be a young woman in the second pregnancy. Seven months before a miscarriage had occurred. I did not learn, but supposed it was a fetus. The vagina was filled with clotted blood. She supposed herself to be six months pregnant, but there was something peculiarly striking about the formation of the abdomen, in fact, the womb was much smaller than at the sixth month of pregnancy. This mass was expelled and I found it to be hydatiform mole. There was not much hemorrhage after my arrival, there had been considerable before. There is one thing I would like to call attention to in these cases, that is, the configuration of the womb as felt through the abdominal wall. The womb that is pregnant at the sixth month is about on a level with the umbilicus; now, in this case it was not. The womb that is pregnant and containing child shows irregular configuration corresponding to the bony points of the fetus; in this case it did not; there was symmetrical enlargement, and on abdominal palpation the sensation given was that of dough. In these cases there is at times considerable hemorrhage upon the expulsion of the growth, and to inexperienced persons no doubt the idea would be that they were dealing with placenta prævia, but a careful examination of the womb externally will soon convince them that it is not that trouble. There is a difference of opinion among authors in regard to the origin of this degeneration. Some think it is caused by the death of the fetus, and afterward this pathological change in the chorion takes place. Others think that the starting point is in the chorion, gradually producing absorption of the fetus; these growths seldom go beyond the fifth or sixth month, they are most usually expelled at that time.

Dr. Coles.—Was there any history of syphilis in this case?

Dr. Meisenbach.—I did not learn of any; the case was given very imperfectly by the woman, she being Bohemian.

Dr. Coles.—As indicated by the question I asked, I think it very likely that in the history of this case there is possibly some syphilitic taint. It seems that the fact that she miscarried previously, and this trouble ended in a subsequent pregnancy, would indicate that there might be some such trouble. I would suspect that possibly she has suffered from constitutional syphilis. We all know that it is one of the most frequent causes of miscarriages, and not only is it the cause of miscarriage, but frequently is the cause of degeneration of the ovum, and if the doctor has any subsequent control over the patient I would suggest that he put her on a course of constitutional treatment.

Trouble With the Association Medical Journals.

THE *Journal of the American Medical Association*, in the space of less than a year, has been most violently attacked. That it will continue to be so as long as it is published all may be sure. It is this element in its management that is its weakest point, so that with many it is a doubtful question whether the enterprise can be long maintained. As an illustration of the methods employed is the following: As the facts have all been published, and a portion of them over the writer's signature, there can be no disagreement as to facts. Dr. Packard, of Philadelphia, a member of the Board of Trustees, saw fit to present his grievances to the medical profession by means of a circular letter, before he had presented the same to the Board itself, at one of its meetings. Usually it is regarded as simple courtesy to a board that any dissatisfaction of one of its members should first be presented to said board, at one of its meetings, and then if the member is denied a hearing and does not accomplish that he desires, he may appeal to the members at large. This courtesy Dr. Packard did not accord to the Board of Trustees of the *Journal of the American Medical Association*. Of course, he has a perfect right to pursue this course, if it seems wise for him so to do. But in the circular letter he tells the profession that the journal is in debt, how much he does not say, but friends of his say that he stated it was $6,000 in debt. This was a grave charge to make against the management of an enterprise of the nature of the one considered. But the report of the President of the Board of Trustees showed that the journal was not in debt—farther, that it had money enough to meet all the expenses of the *Journal* to the end of the journal year, allow $1,000 for the expenses of the Washington meeting, pay the sums appropriated for scientific work, and still have $500 for a reserve. Thus it appears that Dr. Packard's statement as to this point was entirely unfounded. Now, if one of his statements be unfounded, what shall be said of the rest? He attacked the judgment of the Board of which he is a member, but he was unable to bring facts and figures to show that the journal could be published better at any other place, and with any other editor. Nor did any other person make such an exhibit of favorable place, and editor, and publishing house as to impress the Board that a change could be wisely made. The Board was ready and willing to consider any change which could be supported with facts and figures, to show that it was a wise and safe change to make. Chicago and Dr. Davis were chosen as place of publication and editor because by facts and figures these were shown to be entirely trustworthy, and as sure not to leave the management in debt and in other unpleasant difficulties.

When the facts of the case are looked squarely in the face, we submit that all unprejudiced minds will say that the management of the Association journal did the best for all concerned. What are the facts? First, the income of the Association for several years previous to the starting of the journal, had averaged about $5,000. Second, the management of the journal in one year increased this income to over $8,000. In short, the journal added to the income of the Association in one year $13,000. Is there, or has there ever been, a medical journal which has taken in cash the first year of its publication $13,000? It may be that there is, but the fact has never come to public knowledge. Third, it more than doubled the number of paying members of the Association during the first year. All permanent members wanted the journal and hence they paid their $5.00. Fourth, every dollar received from subscribers has been applied to the conduct of the journal. The Association has got back all of its $18,000. The Trustees would have been pleased had they been able to give their subscribers a journal costing $50,000; but without running the Association in debt, this could not be done.

We have no doubt that the Trustees of the journal are entirely willing to step down and out, and give place to any other set of trustees which the Association may see fit to select. Certainly the time and trouble and thought and expense attendant upon the performance of their duties are so considerable, that they would rejoice in committing their trust to others. But while they remain trustees, they should do their best for the journal that is possible with the means at their disposal. They are all practical men and are quite sure to bring a practical common-sense to the discharge of their duties.

No persons understand better than they that the journal is not all that is desired. All they claim is that it is the best which could be done under existing limitations. As with time and accumulated resources these limitations disappear, so will the journal gradually approach the standard which they have before them. Great and strong things are reached only by growth, and growth requires time. Our personal desire and aim is to do what lies in our power to make the journal the adequate representative of the American Medical Association. Patience and persistence in the line of a steady policy will be sure to win ultimate success. A flickering, changing policy will work speedy ruin. We suggest that each person who has any facts or ideas by which he thinks that the Association journal can be improved, forward the same either to the President of the Board of Trustees of the journal, Dr. J. M. Toner, of Washington, or the editor of the journal, or any individual member of the Board. We are certain that all such suggestions will be courteously received, their contents considered, and, in so far as practicable, put into execution. Farther, we trust that hereafter members of the Board of Trustees will present their views as to the changes needful, first to the Board for consideration in open meeting. If then they find themselves misrepresented by the action of the Board, they can appeal to the profession by circular letter, or to the general meeting of the Association.

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Inoculative Protection Against Hydrophobia.

In the *Journal* of July 12, under the head of "Medical Progress," is an account of a communication by M. Pasteur, concerning his investigations and experiments with the virus of rabies, which is well calculated to create the impression that the diluted virus could be used by inoculation successfully to protect man, as well as dogs, from liability to attacks of that dreaded disease. In the present number of the *Journal* our correspondent in Paris refers in his letter to the same subject, mentioning several cases in which the inoculation was tried in patients previously bitten by rabid animals, but which patients all died. Now a medical friend in St. Louis sends us the following item of correspondence, the closing paragraph of which asserts "that the idea of protecting *man* against hydrophobia by inoculation of rabic virus, has for the present, at least, not been investigated." From these various statements, we infer that some time is likely to elapse yet before a bite from a rabid animal can be rendered certainly harmless by inoculation with attenuated rabic virus. The note from our friend is as follows:

"INTERESTING CORRESPONDENCE ABOUT HYDROPHOBIA.—(From the *Courrier Des Etats Unis.*) M. Joseph Braman, of New York, has addressed the following letter to M. Pasteur, the illustrious French chemist:

"'As a member of the American Public Health Association, I congratulate you on the discovery of a remedy to cure hydrophobia. At the next meeting of our Association I shall have the pleasure of proposing you as an honorary member.

"'Will you have the kindness to inform me: 1. Whether quills dipped in the virus could be used, as is being done in vaccination to prevent small-pox?
2. How long will the virus keep and be effective? 3. Can any be sent here which would last several weeks?'

"The following answer, signed by Dr. Roux, was received by M. Braman:

"'M. Pasteur instructed me to answer your letter of May 2.

"'The journals you have read have probably not given an accurate account of M. Pasteur's last statement, in which the subject of a *remedy against* hydrophobia has not been mentioned. M. P. has simply announced that rabic virus can be obtained of diverse degrees of virulence, and, furthermore, that *dogs* can be *protected* against rabies by inoculation of a carefully selected virus, which is obtained through a particular process.

"'It is impossible to send the virus a great distance; further, it must be well understood that the idea of protecting *man* against hydrophobia by inoculation of rabic virus, has for the present, at least, not been investigated.'"—*Detroit Lancet.*

The Antipyretic Treatment of Typhoid Fever.

THERE has recently been a pretty thorough discussion of this mode of treatment in the London Medical Society, and carefully prepared papers on the subject have been read by Drs. Coupland, Bristowe and Cayley. The *British Medical Journal* has had a leader on the subject, and Dr. J. O. Affleck has, in its pages, given an interesting summary with some valuable deductions.

This disease owes some of its dangerous characters and damaging effects to the long continuance of pyrexia; the toxic action of the fever poison, particularly on the nervous system, the local lesions in the intestines, and their results in the structural changes and atrophies which render the assimilative processes comparatively inert, form a large part of the morbid process. Since the introduction of the clinical thermometer, attention has been turned in a special manner to the treatment of the pyrexia, with the view of lessening its amount, or at least, of breaking its continuity. For this purpose, various antipyretic drugs of known potency (quinine, salicylate of soda, salicin, kairin, etc.) have been turned to account, and they undoubtedly, in many instances, succeed in bringing down for a time a high degree of temperature. To most of them, however, there exists the objection that their continuance upon which, indeed, their efficacy depends, is often ill borne by the digestive organs, and in some cases they appear to be rather hurtful than otherwise.

The modern employment of the cold bath or cold bathing of the body in fever appears to have been first resorted to in Germany, by Liebermeister, Brand and others. The advantages of this mode of treatment are stated by Dr. Cayley to be as follows:

1. It fulfills the physiological indications that by keeping down the temperature, the febrile metabolism of the tissues, and the accumulation in the blood of the products of this metabolism—and to this Dr. Murchison attributes most of the symptoms of the typhoid state—are much diminished. The granular infiltration and softening of the central nervous system of the heart, of the liver, of the kidneys, of the voluntary muscles, is to a great extent prevented; and, by the stimulating effect of the treatment on the vaso-motor system, that want of tone and general relaxation of the arteries, which is a marked feature of the disease, is counteracted.

2. Where efficiently applied, the treatment produces marked alleviation of the symptoms. When the temperature is kept down, the so-called typhoid symptoms are seldom seen, etc.

3. Complications are rendered neither more frequent nor more severe.

4. The rate of mortality is greatly diminished.

Dr. Affleck discusses these four conclusions in order. As regards the first, he considers that the mere height of the temperature and its effects on tissue-metabolism, will not satisfactorily account for the peculiar symptoms of typhoid fever. A septic process is in operation of which the temperature is but one of the manifestations and not always, *per se*, an accurate or reliable one. In addition, in enteric fever there is a distinct visceral lesion, which obviously bears some relation to the temperature. It can scarcely be contended that the mere combating of the febrile action can counteract either of these great factors in the disease. This line of treatment is simply directed to a mere symptom, and is incapable of influencing the still existing cause underlying all the phenomena.

As to the second point, viz., the efficient application of the cold bath treatment, this is limited by requirements which are impracticable in a very considerable proportion of cases. It is difficult to recognize typhoid fever "from the first," and, at least in hospital practice, most of the cases have gone on for a good many days before they come under the cognizance of the physician. Further, its advocates recommend great caution in its use where severe local lesions are indicated, although it is just in such cases that the temperature is often highest.

Thirdly, as to the complications, it is doubtful that pulmonary diseases are rendered much less frequent in view of testimony of a directly contrary character , while as regards intestinal lesions, there is evidence that the liability to these is somewhat increased.

With reference to the last point, a greatly diminished mortality rate, here, too, the proof is inconclusive. First the diagnosis is a matter of uncertainty, the numbers quoted may include morbid conditions which are known to simulate typhoid fever. Then of late years a vast improvement has taken place in nursing, dieting, general hygiene, and in the medical treatment of such cases. Jaccoud asserts "that while the mortality in typhoid under the old method of treatment was about 19 per cent., under the antipyretic mode it is under 11 per cent.;" but Dr. Affleck gives the mortality statistics of the typhoid wards of the Edinburgh Royal Infirmary during the 4 years of 1880 to 1883, where in 509 cases there were 60 deaths. Thus, under a non-antipyretic treatment the total mortality was not more than 12 per cent., and if cases moribund when admitted, and dying in less than forty-eight hours, be included, the rate is reduced below ten per cent.

Dr. Affleck's objections to this treatment are, the fatigue involved, increasing risks by movements in progressive bowel lesions; and the depressing effects upon the circulation, with the risks of intestinal congestion, hæmorrhage, etc. He therefore contends that the limit of its applicability is a comparatively narrow one.

Trachelorrhaphy.

Dr. A. S. Clarke about five years ago assisted Dr. Skene in restoring a cervix badly lacerated bilaterally, and he was sent for in June last, to deliver the same woman; but when he arrived the child was born, labor having been very rapid. The child weighed ten pounds. There was no laceration.

The cause of the re-laceration, when it does occur, is supposed by some to reside in the hardened cicatricial tissue said to remain after the operation. But Hunter has shown us that none is found a few months afterwards, and even if there were, it is difficult to understand, from the location it must occupy, how it could interfere with dilation.

If it were circular, it would do so, whenever present, but being lengthwise, can not interfere much, if any; and Clarke says, in reference to the rapid birth of this ten-pound child, that "if any cicatricial tissue from the old operation had been present, he thought it certainly would have given way." Dr. Hanks stated that he had delivered *several* women whose lacerated cervixes he had sewed up, without any injury resulting. As bearing upon the supposed presence and influence of cicatricial tissue, in causing protracted labor and re-lacerations, I ask attention to the following remarks of Dr. C. C. Lee: "Two years ago, Dr. Lee performed an operation in the Woman's Hospital on a patient who had a very extensive double laceration of the cervix, so that very little of the true cervical tissue remained after its repair. An excellent result was obtained. He was particularly interested in the case, as the laceration had been so extensive, and she was a young woman, and expected to bear more children." She was subsequently attended in a confinement by his associate, Dr. Swasey, who reported "that no laceration whatever had occurred." Dr. Lee examined her very carefully afterward himself, drawing down the cervix with the tenaculum, but he was unable to find any laceration. Dr. M. A. Pallen stated that "with regard to subsequent delivery without injury, after operation on the cervix, he had met with *several* such cases—at least half a dozen in his own experience. Some patients he attended in two subsequent labors, and no laceration took place. Last year he closed a double laceration of the cervix, and in July last attended the patient in labor. No laceration occurred either of the cervix or of the perineum, both of which he had operated on for laceration.

In the New York *Medical Journal*, Vol. xxxviii., 1883, p. 48, a discussion in the Philadelphia Obstetrical Society is recorded, in which are twenty cases of pregnancy following operations by Drs. Baer, Gittings, Goodell, Montgomery and others. In nearly all the cases a normal labor occurred, unaccompanied by re-laceration.

There are some facts to prove that this is not so universally safe an operation as many have supposed it to be. While my question in regard to the occurrence of pelvic cellulitis and peritonitis was answered by eight correspondents in the negative, four report eight cases, and six say they have had "several" or "a few" cases each, and eight do not reply to the question at all.

Drs. Emmet, Scott, of San Francisco, and others, say that where it has occurred, it has generally been traceable to some error in the operation, such, for example, as failure to entirely cure an existing chronic cellulitis, so that when the uterus was drawn down to the vulva, the overstretched tissue became irritated and an acute attack resulted. Seventeen cases of hemorrhage are reported—one fatal case and several not yielding to ordinary means, including styptics and the tampon. Sutures had to be introduced beneath and around the bleeding vessels before the hemorrhage could be controlled.

Seven deaths resulting immediately from the operation are reported, and I have heard incidentally of three others not included in this table, but within the knowledge of some of the writers—making ten in three thousand cases; that is, three and a third to a thousand, or about one-third of one per cent. if we include the ten cases—three deaths occurred in the practice of one man, and he so good an operator as Goodell, as set forth in the table already reported.

I think I have proved, from the best of testimony, that Emmet's operation does not cause sterility when properly performed; that re-laceration is no more prone to occur after the operation than before, and that severe or protracted labors do not follow as a consequence; that it is not without its dangers, ten deaths occurring in a little over 3,000 cases, besides a number of instances of hemorrhage and cellulitis not fatal. I believe the cervix is operated on in many cases which might have been cured by proper treatment; and I believe also that the operation, when properly performed and clearly indicated, is one of the greatest improvements of the age.

89 MADISON AVENUE,
NEW YORK, March 8, 1884.

DR. J. T. JOHNSON, WASHINGTON, D. C.:

Dear Doctor—I wish I knew how many times I have operated for closing a lacerated cervix—certainly not less than 500 or 600 times in the past twenty-two years. I have never regretted doing the operation, and have often wished that I had performed it. I believe that I have kept many a woman out of the lunatic asylum, and saved many a life from phthisis. I have never lost a patient from or after the operation. Quite a number have had more or less cellulitis after the operation, which could generally be traced to some imprudence or to an error in judgment on my part in operating before the case was properly prepared. I have known of three cases where serious hemorrhage has occurred after the operation—one in my private hospital, where oozing went on for several hours after the operation, and was stopped by a deeper stitch, a recent case in my service at the Woman's Hospital, coming on about two weeks after the operation. It was a very serious case, and was stopped with difficulty by the use of the tampon. The third case was in Dr. Pallen's practice several years ago, when the bleeding had been going on for some two days after the operation, and the woman was very nearly losing her life. I was called in, and stopped the bleeding by untwisting the sutures and introducing another lower down. I do not believe the operation has anything to do with causing sterility. When a woman has remained sterile afterward, it has been due to the existing cellulitis, or to the damage done by the previous inflammation, including the tubes. I take great care in preparing my cases for the operation, and pregnancy has occurred so often after I have operated, that I am fully convinced my view is correct. I do not recollect of more than three or four cases having returned with a second laceration, and have examined a large number of old patients where a fresh laceration did not occur, and some have borne a number of children after the operation. I only wish I had the data to give you, but I have been too busy a man to keep them, and can only give my impressions.

In writing on this subject you may do much to correct the general abuse into which the practice of the operation has fallen. Everybody is performing it, and very few are doing it with any purpose except to close a fissure. The operation should never be done without there are marked symptoms calling for it, and the case should be properly prepared before it is done; for until the cellulitis has been removed, which causes the parts to roll out, it is impossible to decide, except in a very few cases, if the operation is needed or not. A large fissure will sometimes disappear as the parts roll in again, as the cellulitis clears up. Where there are marked reflex symptoms, very few clear out properly the dense tissue from the angles; and I operate on a large number of cases with marked benefit when the operation has already been done by some one else and the patient had been disappointed in the result.

Yours very truly, T. A. EMMET.

—*Jour. of Amer. Medical Association.*

Sequelæ of Diphtheria.

THE sequelæ of diphtheria, as we know, are oftentimes more serious than the disease itself, and Dr. Alfred Carpenter endeavors to explain their occurrence (*Brit. Med. Jour.*) by the following ingenious theory:

"But how will this explain the sequelæ which frequently follow upon diphtheritic mischief? I mentioned the fact that potato-rot is known to be propagated by the agency of resting spores. These are spores or germs which are shut up in a very resistant envelope, which enables them to retain their vitality in adverse circumstances; so that heat, if it be not much above 212°, and the cold even of zero, will fail to destroy it. These spores may, by analogy, be fairly assumed to exist. The ordinary spores are evacuated from the system as the patient recovers; but the resting spores remain in contact with the lining membrane of the blood-vessels, or are carried by the blood-current into some of those parts of the body which usually act as filters, and retain matters which are foreign to the blood-current. Perhaps they attach themselves to lining membranes, such as the valves of the heart. They may there, as they develop, set up ulcerative endocarditis; and, being detached from the valves as they increase in size, they irritate the membrane; and, being carried on by the blood-current, they produce emboli at the spot to which they are carried. There they multiply sooner or later, and the sequences of the disease appear as if they were separate and independent diseases, and as such are often registered among the causes of death as totally independent of the preceding diphtheritic condition."

Of treatment, he says:

"That treatment has been the use of ammonia as the proper stimulant, so as to reduce the acidity of the blood; for I have generally found these cases in constitutions which are either rheumatic with the lactic acid diathesis, or gouty from the excess of lithic acid in the constitution. I have generally given alkalies, as lithia, or potass. in combination with it; and when there has been an elevated temperature, which has indicated excessive chemical action in the invaded part, I have given the sulpho-carbolate of soda, with the greatest possible benefit. This salt reduces temperature, most likely by its antiparasitic power; for as soon as a few doses have been given the fever subsides, and the patient is much relieved; but if the medicine be left off too soon, there is certain to be a relapse. This is very disappointing, and, if the practitioner be disheartened, and try another remedy, his patient will probably die. But if he return to his sulpho-carbolate, he will ultimately destroy all the developing resting spores in the tissues of his patient, and lead him on to a perfect recovery. It is curious how, in these cases, organ after organ becomes involved in the disease; it is also curious, but highly satisfactory, that the congestions or embolisms follow one another in point of time, otherwise there would be very little chance for the patient to recover. I would urge the practitioner to continue the sulpho-carbolate, in small doses, first with the ammonia, and, after a time, with quinine, avoiding altogether the mineral acids, as such appear to allow a more rapid development of the resting spores and a further relapse.

"As regards the local treatment of diphtheria, I have been accustomed to treat it on scientific principles, and attack the disease just as my gardener attacks the oïdium upon grapes, and other parasitic diseases upon vegetables generally. I apply the powder of washed sulphur to the throat very frequently, blowing it into the fauces, and applying it by means of a brush with a little glycerine or honey, alternating the application with a little sulphurous acid in solution. It is not a painful application, it destroys the mycelium and the ordinary spores which produce the disease. If this be done quickly, so that the growths do not penetrate to the deeper tissues, no resting spores will find admission to the body, and there will be no following sequelæ. I have also been accustomed to advise that creasote be kept in the room, so that the air may be placed in that condition which diminishes, if it does not destroy, the growth and development of hyphomycetous fungi."—*Med. and Surg. Reporter.*

On the Treatment of Typhoid Fever.

BY PROF. DUJARDIN-BEAUMETZ, OF PARIS.

Gentlemen: I pass now to the study of germicide medication. You already well know that a great number of antiseptic medicaments have become, by their therapeutic application, antipyretic medicaments; this is what has happened in the case of many substances derived from the aromatic series. It remains for me now to speak of medicaments which, while possessing an evident antiseptic action, have not, at the same time, any effect on the temperature.

It is thus that there have been successively applied to the treatment of typhoid fever, creasote by Pecholier and Morache, iodine and the iodides by Aran, Magonty and Wilbrand; a combination of iodine and carbolic acid by Roberts Bartholow and James C. Wilson; chlorine and the hypochlorites by Chomel and Beaufort; the sulphites and hyposulphites by Polli; preparations of copper by Burq and Moricourt; mercurial preparations (the black sulphuret) by Serres, and calomel by Wunderlich and Liebermeister, also by Bartholow and Wilson in America. I shall not dwell further on these antiseptic preparations, this medication not being established on a scientific basis; for, if by the introduction of antiseptic substances it has been possible to disinfect the stools, it has been impossible to arrest the course of the disease, that is, to prevent the development and penetration of the micro-organisms into the entire economy.

Calomel, which terminates this long series of antiseptic medicines, belongs rather to the evacuant than to the parasiticide medication, and will serve as a bond of union between the two. The idea which gave rise to the evacuant medication was perfectly just, especially at the time when this medication was first instituted. In fact, we have seen Dr. Larroque maintain since 1832 that it is in the fecal matters that the septic element of the disease is found, and that it is necessary, in order to prevent the poisoning of the entire organism, to eliminate these septic matters by stool. You have seen that experimental physiology has justified this view of the subject; only in their haste to eliminate the peccant prinicple, the founders of the evacuant method have gone a little too far, and have not hesitated to give every day an ounce of castor oil or a bottle of Seidlitz water. Carried to this extreme, the purgative method is rather injurious than useful; it weakens the patient, and, by exaggerating the peristaltic movements of the diseased intestine, it may be the exciting cause of hemorrhage or of perforation. Utilized in moderation, however, the evacuant method is a serviceable adjuvant to treatment, promoting elimination of putrescent matters.

It remains for me to speak of the tonic and empirical medication. The tonic medication is now universally popular, and in order to repair the incessant losses which the organism undergoes from the exaggerated combustions which the febrile process determines, preparations of quinine have been employed, and, along with suitable alimentation, alcoholic stimulants.

I shall not repeat what I said about alimentation while on the hygienic treatment of typhoid fever, nor shall I dwell further on preparations of bark, only pointing out this fact, that the potions containing the soft extract of cinchona, which are so much administered in these cases, often pass through the alimentary canal without undergoing any modification; and in many instances I have found in the stools of my patients almost the whole of the extract which I had given them. But I must devote a little more time to a consideration of alcohol.

Since the works of Todd in England, and those of my master, Behier, in France, the use of alcohol in this fever has acquired great vogue, and I have already spoken of the advantages and disadvantages of this medication, while on the treatment of pneumonia. In typhoid fever alcohol does not act as an antipyretic, and if you wish to lower the temperature by this agent, you will have to give such large quantities of it that the treatment will be more dangerous than useful; but given in proper doses, alcohol acts as a tonic, and, moreover, diminishes that process of denutrition which results from exaggeration of the combustions; this is its great utility.

To those who adopt the opinions of Lallemand, Perrin and Duroy, it is very difficult to explain this waste-restraining action, because, in their belief, alcohol does not undergo any transformation in the organism. According to the hypothesis which I have defended, and which seems to-day experimentally demonstrated, this kind of effect is quite readily explicable. I maintain, in fact, that alcohol, in presence of oxyhæmoglobin, and by virtue of the feeble bond which in this substance unites oxygen to hæmoglobin, appropriates the oxygen, and, transforming the oxyhæmoglobin to reduced hæmoglobin, modifies and arrests in a certain measure the oxidation of the tissues of the economy.

Todd, Murchison, Fourrier and Autellet have shown us the good effects of the alcoholic medication in typhoid fever. Notwithstanding the advantageous results claimed, I do not believe that we ought, following the example of Jaccoud, to give alcohol to all our typhoid patients indiscriminately; and I believe that it is best to reserve this remedial agent for certain cases, which I shall soon have occasion to describe.

When the temperature exceeds 102 degrees F., I begin the practice of cold lotions (sponging), which I repeat two or three times a day, or even oftener, according to the elevation of the temperature. These means often suffice to keep the temperature in the neighborhood of 102 degrees F. But when it exceeds 103 degrees F., and marches towards 104 degrees F., then is the time for my intervention with salicylic acid. I give at noon, and in the space of an hour, four capsules, each containing seven and a half grains of salicylic acid, and I take care to administer during the day a certain quantity of milk, namely, about a quart.

Under the influence of the salicylic acid there is a depression of temperature; but to render this, in a manner, permanent, I repeat my dose the next day, at the same hour; then I omit this treatment for a day or two, and note the height of the thermal curve. If it attains the previous figure, I again give the acid for two days, in the same dose; and if the temperature still tends to exceed 104 degrees F., I double the dose and then give sixty grains in two hours—in doses of seven and a half grains every fifteen minutes; and sometimes I go as high as seventy-five grains, but I never prolong beyond two days the action of the medicament. Such are the sole means which I employ against the pyrexia.

A Case of Chorea Treated with Jamaica Dogwood.

Dr. C. H. Woodcox: I was called to see Miss Maggie Thompson, of this city, age eleven years, of a nervo-bilious temperament. The affection proved to be a case of St. Vitus dance. When called, the case had grown so bad that it was found almost impossible to keep the child upon the bed, even with the assistance of two or three at the bedside, there being such a violent involuntary motion of the entire body. At this time she had been confined to her bed about six weeks. Seeing there had been no benefit obtained from the former treatments conducted by reliable physicians, I was somewhat puzzled to know what to do, but after making a thorough examination and finding a temperature at 98–8° as best I could get in axilla, and pulse varying from 80 to 84, with coated tongue and foul breath, I determined "to work upon the secretions" as though there had never been any former treatment. There being a loaded condition of the urine and a dormant state of bowels, I prescribed acetate potash ʒ iij, water ℥ iv, of which I gave a teaspoonful every two hours until the urine was cleared up. At the same time I gave an "alterative powder composed of leptandrin grs. xv., podophilin, grs. vij.; capsicum, grs. ij; mix and make twelve powders; gave one every four hours. To keep my patient quiet I gave a mixture of chloral hydrate, ʒ ij; bromide potash, ʒ ij; in simple elixir, ℥ ij, of which take a teaspoonful. This treatment I continued for one week, when I found my patient's system in a very good condition. I then prescribed pyro-phosphate of iron, ʒ i.; in simple elixir, ℥ ij.; of which I ordered a teaspoonful before meals three times a day. Also Fowler's solution, ʒ i.; simple elixir, ℥ ij.; of which a teaspoonful one hour after meals was ordered. Continued chloral and bromide as above. I kept my patient upon this treatment for 12 days without very much improvement. At this point I began to look around a little, for I well knew that I must begin to skirmish. After looking over the many remedies indicated in this case, I concluded to try the Jamaica dogwood. This, to my great amazement, I found to give prompt relief. My patient, when I commenced its use, was still in bed and the symptoms not much better. Involuntary motion was almost constant. I prescribed ʒ ss. of the Jamaica dogwood three times a day, after meals, the last dose at bed-time. I at once omitted the hydrate chloral and bromide. The drug was commenced Dec. 28, 1883. I called to see my patient on the 30th (48 hours later) and to my greatest satisfaction I found her quietly lying in bed and to all appearance resting without the least symptom of narcotism present. I unhesitatinlgy followed up with the Jamaica dogwood. At the end of eight days from the commencing of medicine my patient could stand upon her feet, dress herself without the assistance of any one, could walk across the floor and had begun to feed herself. Twelve days later I visited her and pronounced her cured. Discontinued Jamaica dogwood and put her upon a mild preparation of syrup of phosphorous as a restorative.—*Therapeutic Gazette.*

Rule for Reducing Dislocations of the Hip-Joint.—Having flexed the leg on the thigh, and the thigh on the pelvis, slowly rotate the limb as far as possible, inward or outward, according as the toes pointed in or out before beginning the manipulation; then rapidly and forcibly rotate the limb in the opposite direction, and the head of the femur will usually slip into the acetabulum.

For example: In the iliac and sciatic dislocations, the toes point inward; therefore rotate inward as far as possible, and afterward rotate outward. In the pubic and thyroid dislocation the toes rotate outward, hence rotate the limb outward still more, and then inward.—*The Analectic.*

Microscopy.

Fresh Water Algæ.*

The term algæ signifies sea-weeds, and is used to designate certain marine and fresh-water plants, which, because they bear no flowers, stamens nor pistils, and in fructification produce spores instead of seeds, are styled cryptogamous plants. The algæ comprise not only sea-weeds properly so called, but likewise the gelatinous or scum-like substances found floating on or near the surface of ponds, ditch water and placid streams; only a very small proportion of the entire class of fresh-water algæ is confined to trunks of trees, shady recesses, or to rocks dripping with moisture.

Owing to the life-like peculiarities exhibited in some stages of their development and growth many of the algæ were believed by Ehrenberg and other microscopists of his time to belong to the animal kingdom, but the wholly vegetable character of the algæ is now too well established to admit to further controversy.

Howsoever great in other respects their individual differences may be, the algæ possess certain characteristics which are common to them all. They are cellular, flowerless and devoid of roots; their home is in the water; the very few which affect other localities die when deprived of moisture. Their nutriment is absorbed through their entire surface from the medium in which they live. They are totally devoid of vascular tissue; in fact, are mere congeries of simple cells on the arrangement of which depends their structural differences.

As a large majority of them, especially the desmids, are free-floating plants, it would be a waste of time to seek them in rapid waters; they affect pools, sluggish streams and ponds; the latter afford the most satisfactory results to the explorer when the pond is a mile or more in length and is fed by one or two creeks; the indentations on the margins of such a pond and its tributaries usually abound in water grasses and mosses which shelter and support the floating algæ.

The outfit need not consist of more than a nest of four or five tin cans (tomato or fruit) one within the other for convenience of carriage; ten or a dozen wide-mouthed vials and a small ring-net of fine muslin at the end of a rod about four feet in length. Should a boat be needed it can usually be hired on the spot. After selecting what seems to be a good locality, drag the net a few feet among the grasses and mosses above indicated, allow the bulk of the water to drain through the muslin, and then empty the residue into one of the cans; repeat this process as often as may be desirable. Ten or fifteen minutes after the cans have been filled most of the surface water may be poured off and the remainder transferred to a glass vial, where the solid contents will gradually sink, and the superfluous water can be again poured off and the vessell filled up with deposits from other vials. In shallow places what is known as swamp-moss (*Sphagnum*), bladderwort (*Utricularia*), Water-milfoil (*Myriophyllum*) or other finely cut leaf water plants are likely to abound; these should be lifted in the hand and the water drained or squeezed from them into a tin can, to be subsequently treated as already stated. A few drops of carbolic acid in each vial, just enough to make its presence perceptible, will preserve the contents for months and even years from deterioration; the green coloring matter (chlorophyll) may fade, but this in the case of the desmids is of little importance; nevertheless, when practicable, always examine the material when fresh. When dried on paper for the herbarium, the specimens can still, after being moistened with water, be microscopically examined, but not with the best results, since the drying is apt to collapse or otherwise distort the cells.

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* Extract from 'Desmids of the United States,' by F. Wolle.

The collector will not know the value of his find until it has been brought drop by drop under the lens of his microscope, and out of the entire mass he may discover nothing to reward his labors; this, however, should not discourage him, as one or two failures are to be expected prior to meeting with an adequate reward. His interest in the study will be greatly enhanced if he keeps a record of it in sketches of what the microscope reveals to him. These sketches should, of course, be very exact, and, in order that they may be so, it is necessary that the microscope should be provided with an eye-piece micrometer with which to measure the length and breadth of the figure to be sketched; a half inch per $\frac{1}{1000}$ (.001″) or 25 μ is the most convenient, though ¼ or ⅓ of an inch may be a preferable scale for the larger forms. It is so difficult to separate specimens from their accompanying foreign matter that it is seldom amateurs can mount them satisfactorily on slides, and therefore this method of preserving specimens is not open to recommendation.

Although in the microscopic study of the fresh-water algæ much has been done within the past few years, much more remains to be accomplished. The field, instead of growing smaller, seems to widen out with every fresh discovery; localities thought to have been exhausted of additional possibilities, have, in subsequent seasons, yielded ample returns to the patient explorer; and if the old territory is not sufficiently attractive there are vast regions into which no student has yet penetrated, where, doubtless, the harvest awaiting the reaper dwarfs all that has been heretofore garnered.

Gleanings.

Chronic Ulcer of the Stomach.—Without referring to other numerous preparations named in the books, all of which are used upon general principles, my special object is to call attention to the value of *chloral hydrate, in solution, as a curative agent.* Reference has already been made to its use as an adjuvant anodyne, and also as a stomachic. But we wish to give it a more exalted rank—that of a remedy for chronic ulcer of the stomach. In effect, this ulcer is of the indolent variety, and the use of chloral in such ulcers, when they occur on the outer surfaces of the body was made popular by the recorded results of Lucas, of Guy's Hospital, in 1875. Dr. Hunter McGuire, of this city, has given this agent much prominence in the treatment of various indolent conditions of wounds and other surgical cases. Chancroids, which have the appearance of gastric ulcers, have been successfully treated by chloral. But I am unable to find that it was ever used for chronic ulcer of the stomach before I so used it in 1881. In a desperate case of chronic ulcer of the stomach under my treatment in January, 1881, I determined on the use of chloral hydrate in ten-grain doses, repeated at intervals of from two to four hours to secure sleep and ease. Much to my surprise, all the symptoms of distress were greatly relieved. A continued study of its action taught me that smaller doses acted just as well, and of course the danger of chloralism was less. I was encouraged to pursue this treatment by a consultation with Dr. Hunter McGuire, who related at the time some of his valuable experiences with the agent in other diseases or conditions. I would recommend a solution in water of from three to six grains of chloral to one ounce of distilled water. The dose should be a teaspoonful every few minutes until half a fluid ounce of it is taken. This same treatment acted most satisfactorily in another case of the disease under my care, which occurred shortly afterwards in the person of a sailor about forty years of age. The first of the two cases referred to was a lady about thirty-five years of age.—*L. B. Edwards, M. D., in Va. Med. Monthly.*

EXCISION OF SYPHILITIC AND SOFT CHANCRES.—In the *Vratch*, 1882, No. 33, Dr. V. M. Zakharevitch, on the ground of fifteen cases operated on by him during three years, ardently advocates excision both of syphilitic and soft chancres, and lays down the following rules: 1. Syphilitic chancre must be excised in all cases where its situation permits the fullest possible operation, and when the swelling of lymphatic glands is not older than two days. 2. Similarly, soft chancres must be excised in all cases where the operation is permitted by their situation. The advantages of excision of soft chancres, as enumerated by the author, are these: *a*. In some cases, excision, with subsequent suturing, leads to healing by the first intention, and thus shortens the period of healing of a chancrous ulcer to the extent of a few days. *b*. It shortens the process of healing to a half or third of the usual time, even in cases where the operation has not been followed by the application of sutures. *c*. It removes all question of mistakes in diagnosis, with their consequences (the author finds that hard chancre in its initial stage is frequently mistaken for a soft ulcer, in consequence of which the excision is practiced too late). 3. When there exists the slightest suspicion of the real character of a chancroid ulcer, excision must not be followed by the use of caustics or the application of sutures; otherwise, if the induration of the wound appear, it may come to observation only too late for treatment (that is, for repeated excision). 4. Excision must be performed under the permanent irrigation of the field operation, while the operator must most strictly avoid touching the wound with the fingers or with instruments bearing any traces of chancrous fluid.—*London Medical Record*, Feb., 1884.

GERMS.—Pasteur announces that he has succeeded by cultivation of the microbe of hydrophobia in producing it in unlimited quantities, and also in inoculating animals with the disease. He also states that by a process of dilution and attenuation he hopes so to reduce its potency as to be enabled to inoculate animals with a modified form of hydrophobia which will not be fatal, as he claims to have done with various other disease germs. How you can so dilute an organism by cultivation as to make it produce a minor degree ofinjury is something hard to understand. Does he make the microbe feeble in constitution and sickly by cultivation, so that he can not act with his accustomed energy but is able to produce feeble effects similar in kind but less in degree, a kind of puppy-dog hydrophobia? If he can so break down the constitution of the microbe by his plan of treatment, is it not a hint towards a method for the complete extermination of these hitherto invincible germs? Why not attempt to produce amongst these organisms some form of fatal disease which will be contagious and epidemic? Otherwise, even if they are weakened by dilution and cultivation, there is no certainty that they will, when introduced into the human organism, prevent the intrusion of their stronger and more energetic brethren who have not been enervated by civilization. It may be, however, that the cultivated germs have been infected and infecting their allies, who vandal-like stream in after them, so modify their effects as to produce the milder forms of contagious disorder, which Pasteur claims to produce at will. The spread of an epidemic amongst the bacilli, micrococci and other forms is the hope of mankind.

CITRIC ACID IN CANCER.—The *Amer. Practitioner* says: Dr. Brandini, of Florence, has recently discovered that citric acid will assuage the violent pain which is the usual concomitant of cancer. He applies to the part pledgets of lint soaked in a solution of four grains of the acid in three hundred and fifty grains of common water, with the result of affording instantaneous relief in the most aggravated cases.

EUCALYPTUS IN BALDNESS.—A California physician was in the habit of pounding to a pulp the leaves of Eucalyptus, which he applied to his head for the cure of headache, and was surprised to find a new and abundant crop of hair commence to grow.

Defintion of Insanity.— Dr. Buckham, of Michigan, in his treatise on the Medico-legal Relations of Insanity, offers the following definition : A diseased or disordered condition, or malformation, of the physical organs through which the mind receives impressions, or manifests its operations, by which the will and judgment are impaired, and the conduct rendered irrational. And as a corollary we offer : Insanity being the result of physical disease, it is a matter of fact to be determined by medical experts, not a matter of law to be decided by legal tests and maxims.

Sweating in Phthisis.—The *Med. and Surg. Reporter* says: Dr. J. R. Forrest, in the *Lancet,* recommends the following as most efficacious: ℞. Sulphate of zinc, gr. iv.; tincture of belladonna, ʒ j; water, ℥ j.

The body to be sponged with the lotion at bed-time.

It has proved serviceable in my experience in cases both of the incipient and advanced disease, the excessive sweating being often quite restrained after two nights' sponging.

Book Notice.

Hooper's Physician's Vade Mecum.—A Manual of the Principles and Practice of Physics, with an Outline of General Pathology, Therapeutics and Hygiene. Tenth Edition. Revised by William Augustus Guy, M. B., Cantab., F. R. S., Fellow of the Royal College of Physicians, Late Professor in King's College, etc., and John Harley, M. D., London, F. L. S., Fellow of the Royal College of Physicians, Honorary Fellow of King's College, etc. 8vo., pp. 358, vol. ii. New York: Wm. Wood & Co. Cincinnati: Horace Stacy.

We noticed last month the first volume of this work. The present volume forms the June number of *Wood's Library of Standard Medical Authors.*

As we stated in noticing the first volume, the book is intended to be, in the largest sense of the term, a practical work; that is to say, it aims at bringing together, in a small compass, and in a form of easy reference, those items of information which the practitioner would wish to possess when he stands at the bedside, or when he studies a case with a view to its treatment.

Having reached a tenth edition in England is evidence that it has met with great popularity in that country. It is seldom a medical work even reaches one-half that many editions. While not precisely what is understood as a Practice, it describes diseases, differentiates between them and sets forth the general principles of treatment.

Editorial.

The Cholera.— Our readers have been aware, for some time, of the great excitement existing in Europe in consequence of the cholera which has been prevailing in France, more particularly in the cities of Toulon and Marseilles. The latest news at the time we write, is that the malignancy of the disease is abating. But this abatement possibly is only temporary, and the next news may be that the disease is on the increase.

Our information is that cholera appeared in Toulon, France, June 14, when one death occurred; on the 19th another death; the 20th, two; 21st, three; 22d, thirteen; 23d, five; on the 24th, twelve. On this last date it became generally understood that cholera was prevailing in the city, and the consequence was great excitement. The disease is said to have been brought to Toulon by ship from Alexandria, Egypt. We saw it stated in the papers that the commander of the vessel which, by its infection, introduced the cholera into Toulon, committed suicide in consequence of remorse. Why he should have been afflicted with remorse we do not know, unless that he felt that he had been guilty of criminal negligence.

On June 28th, at a meeting of physicians of Toulon, the disease was pronounced Asiatic cholera, and it was advised that all measures known to sanitary science for its control should be at once adopted. We have understood that Toulon is a very filthy place, and consequently, that all conditions favorable for the propagation and spread of the poison exist.

On June 24 cholera made its appearance at Marseilles. The statement is that a child aged thirteen months and a youth of seventeen were the first victims, both cases dying. There is no doubt that the disease was conveyed from Toulon. In fact, it is said that the boy contracted it while attending school at Toulon.

We learn that Spain has quarantine against all vessels coming from France, and has the mountain passes between her and France patroled by soldiers so as to prevent the entrance of all persons from France into Spain in that direction. Italy has also all her northern frontiers closely guarded by the military to prevent passage into the country. Even the papal nuncio, we understand, was denied a pass from Paris to Italy by the Italian minister at Paris. Our latest information was to the effect that no entrance could be had into Italy, except by the way of Vienna.

Austria and Germany have also instituted quarantine to prevent the introduction of cholera into their respective countries. England, as is usually the case, has moved slowly, but, we believe, has made some movement against the introduction of cholera into the country. A case was reported recently as occurring in Liverpool, which the railroad companies of the city stated resulted in their sale of 5,000 extra tickets in one day to persons going out of the city. But the party recovering, the physicians in attendance pronounced the case to have been one of severe colic, brought on by imprudent eating.

Reports from Toulon and Marseilles represent affairs in those cities as deplorable. All persons who have been able to leave have fled, and only the poor are left behind. All business has ceased, and no work is to be had by artisans and laborers by which they can earn anything. Besides, provisions of all kinds are scarce and are sold at a high price. Not a few of the inhabitants are upon the verge of starvation. It is to be hoped, however, that the charitable of other places will endeavor to ameliorate their condition. Poverty and filth, which always go together, will tend to increase the virulence of the epidemic.

Besides the epidemics of this disease at Toulon and Marseilles, cases of cholera have occurred in some ten or twelve other cities and villages of France. But in these other places it has been of a sporadic character and has not assumed an epidemic character. A very few cases have been reported as happening at Paris, but to the present time there has been no appearance of an epidemic in that city.

The effect upon travel in Europe of the "cholera scare" has been very disastrous. Those who had gone there from this country will be apt to hasten their return, while thousands will be prevented from going who had purposed to do so. It is not pleasant traveling there at this time, when passengers often, before being permitted to enter a city, are quarantined on the outside for awhile, fumigated, etc. This check to travel, while it will interfere with the enjoyment of thousands of Americans who had been pleasing themselves with the prospects of a trip to Europe this summer, will make hard times to many Europeans who obtain their living from American travelers. Millions of dollars are expended every year in Europe by pleasure seekers from this country. A very large portion of this vast amount of money will remain at home this season in consequcnce of the "cholera scare."

But the most interesting question, at this time, to every one in this country is, will the cholera visit this country. The rule is, we believe, that, when it appears as an epidemic in Europe, sooner or later it crosses the ocean and appears in this country—appearing usually first in the East and then advancing in the lines of travel to the West. The cholera, however, of 1866, occurred first at New Orleans, and reached Cincinnati by way of the Mississippi and Ohio Rivers. We do not believe that there is danger of its reaching this country the present summer. It may be we may have it among us in the summer of 1885. Already the Government has taken active measures to prevent the introduction of the disease into this country. Consuls of European cities have been ordered to keep the authorities at home fully informed of the progress of the disease, and those of seaport cities have been directed to see that all ships proposing to sail for this country are in good sanitary condition and have no sickness on board. That our readers may be fully informed of the preparations that are being made to prevent the introduction of cholera in this country we copy an editorial upon the subject in the *New York Medical Journal* of the latest date:

"In view of the probability of a visitation of cholera, the State Board of Health of New York has issued a special circular in which, while it takes the very sensible ground that quarantine measures should not alone be depended upon, it does not, on the other hand, sneer at them and villify them, as has come to be too much the habit with sanitary boards in this country. Indeed, the circular distinctly alludes to the fact that, although the disease was brought to the New York quarantine station in the autumn of 1865, it was not until the following spring that it gained a foothold in the city. The whole tone of the circular is in keeping with the view that quarantine is one of our defenses against cholera, but that it is only an outpost, so to speak, and that the inner lines, where the hand-to-hand conflict is to be waged, are in every way to be strengthened by cleanliness, especially in the matter of drinking-water.

"The circular points out that the European sources of cholera are now at least equal to what they were in 1865, and that the means by which the disease is likely to be conveyed across the Atlantic are decidedly greater than they were then. One need not be an alarmist to recognize the truth and the bearing of these statements, however at variance they may be with the jaunty suggestions of certain officials of the steamship lines to the effect that the 'cholera scare exists only in the newspapers.' It is true that the cholera may not reach the American coast this summer, and that, if it does, it may be stopped at the quarantine stations; but the probability seems to be that neither of these possibilities will intervene to shield us from an outbreak of the disease. The board, therefore, wisely calls upon every city, town and village to make preparations to resist and limit the spread of any outbreak; to make careful sanitary inspections; to drain all stagnant pools and low grounds near dwellings; to clean all sewers and house-drains; to cleanse and disinfect cellars, privies, and all filthy places; and to examine and protect the purity of drinking-water.

"This advice, of course, is such as the careful and the intelligent will at once admit to be wise, and will proceed to follow to the extent of their ability; but the question at once arises as to what can be done to compel some heed being paid to it by those who are not disposed to do so voluntarily, but upon whose course not only their own safety but that of their fellow-citizens largely depends. To show how far it is empowered to control local sanitary bodies, the board has obtained an opinion from the Attorney-General, and has issued it in the form of a supplementary circular. The gist of the opinion is that the State Board of Health is supreme over local boards, and that, in case the latter prove inactive in suppressing nuisances dangerous to the public health, in the opinion of the State board, it may compel them to take measures for their suppression, employing mandamus proceedings, if necessary, as prescribed in section 2,067 of the Code of Civil Procedure. It seems, however, that, before such proceedings are resorted to, it will be necessary for the State Board of Health to notify the town board, through the Supervisor, that, in the judgment of the State board, the nuisance exists in the town, and that the town board is required to take proceedings for its removal or abatement. Some months ago the State board found itself in a position where it thought it could do no more than 'request' a powerful railway corporation to provide means of draining a stagnant pool caused by the obstruction due to one of its viaducts. It is to be hoped that the board will now feel its hands so strengthened that it may deal summarily with offenders."

TOULON AND MARSEILLES.—A correspondent recently visited Toulon and Marseilles and telegraphed to this country their respective conditions—July 27.

He first visited Marseilles and reports the part of the city inhabited by the better class of citizens in a very fair hygienic condition. But passing from this part to the poorer quarters, he describes them as follows: "Passing along the narrow and squalid Rue Caissere, over one-half the shops were seen to be closed at every crossing. From a tenement region, on the hill above, a stream of fetid water flowed across the street, and plunged down a precipitous descent on the other side, through dark lanes crowded with towering rookeries, swarming below with idle men, and children playing in the filthy gutters; the women, meanwhile, swashing the water about with their brooms, under the evident impression that they were cleaning something. Each glimpse of any one of these streets is enough to turn the stomach of any healthy man. The smell through all this quarter in which, during a space of twenty minutes, we met three laden hearses, was bad enough; but the smell was indescribably worse when we had driven across the town to two of the most afflicted quarters of all Marseilles—Capelette and the adjoining quarter. In order to reach them we crossed the old ship canal, which was filled to the brim with reeking water, and had its surface thickly covered with garbage and refuse of a decidedly miscellaneous and revolting kind.

"Finally we got on a street known as Toulon Road, a wide thoroughfare without a shade-tree. Along its gutters ran rivulets of drab-colored water, which had overflown from the canal, which was dammed now and then by heaps of rotting vegetables or worse substances, including dead cats and dogs. Four out of every five houses were found closed. Those which remained open were mainly estaminets, where under dirty awnings and on dirty sidewalks men and women sat drinking, or were already reduced to stupor from previous drinking; and junk-shops, in which filthy people were sorting rotten rags in an unspeakably vile atmosphere. Festering filth was around them, and a tropical sun beat fiercely down upon the scene, blinding the eyes as its rays were reflected from the white road, across which, in the Quartier Capelette, courses a stream, about the size of a main sewer in New York, winding its way uncovered among the houses on its journey to the sea. This stream was laden with the sewage of the vilest of the Marseilles quarters—Capelette and the adjoining one—which have furnished much over one-half of the deaths that have occurred in Marseilles, and it is an interesting fact that the largest proportion of them were Italians."

The correspondent visited the hospitals at Marseilles, and says that, at the beginning of the epidemic, nineteen-twentieths of the patients received at the hospital, called the Pharo, died. For the last fortnight matters have so far improved that only two-thirds of those received prove fatal. The excessive mortality at the first was due to the fact that most cases, when received, had developed into a hopeless condition. The highest number in the hospital at any one time is 110. There are two chief doctors and four subordinates, who serve in turns. There are, besides, two apothecaries, ten Augustinian sisters, and a large force of laborers. None of these people, except the two chiefs, will be permitted to go out into the city until November. One sister has already died in the hospital.

How far the correspondent, probably not being a medical man, can be relied upon in his account of the treatment at the hospital, we can not say. We will, however, quote his description of it:

"The treatment, both here and at Toulon, in the first stages, is twenty drops of laudanum, with three grains of either, and ice in the mouth to stop the vomiting. In the second stage the patients become very cold. From ten to fifteen grammes of acetate of ammonia, the same quantity of alcohol, and two injections of morphia are given daily. If the patient can not breathe, artificial respiration of oxygen is produced, and the limbs are rubbed with turpentine.

"The third stage is the coffin. Delay in placing the bodies in the coffins is made necessary by the fact that violent post-mortem action of the limbs takes place, caused by a terrible reaction after death, in which the temperature rises from extreme cold at dissolution to one hundred and twenty degrees after it. Each coffin is carefully disinfected."

After completing his visit to Marseilles, the correspondent went to Toulon, and describes what he saw there, in the way of filth, as follows:

"If, in a sanitary sense, the condition of Marseilles was frightful, that of Toulon struck me as simply murderous. Although Toulon has a background of mountains, the city itself is situated on a flat plain, four feet only above the level of a tideless sea. The consequences arising from imperfect drainage, with a natural want of slope, are that the sewers have only a fall of eighteen inches. So, with a sluggish movement, the filth of the town drops into an almost stagnant sea. What is worse, is that at the points where these drains flow they are only covered with a plank, and the filth, disgusting to the nose, impresses itself on the eyes.

"You not only then smell, but you see the garbage of Toulon. Just fancy people living in this city of quite eighty thousand inhabitants without the faintest glimmer of common-sense in regard to public hygiene. Toulon must be inhabited by people who utterly ignore every precaution which health requires. Their habits, both in their houses and in the public streets, are indescribably filthy. The plain English of it is about this: that it is impossible for people who live on fruit, who drink all kinds of poor fluids, who sleep in dirt and nastiness, who breathe an air polluted by the sewage of the town itself, and rendered doubly poisonous by the excreta left by the training ships, to escape cholera. The marvel is that this disease did not find its birth here years before. Toulon has always been a breeding place of disease. Small-pox, when it broke out in Toulon, was always of a malignant type, and more difficult to stamp out than elsewhere. The natural death-rate is invariably high, and likely to be increased at any time by abnormal diseases."

Although the correspondent was told that it was estimated that a 100,000 people have run away from Marseilles, yet he said that the principal streets seemed as crowded as ever. He found the people gay and enjoying themselves, as if a fearful epidemic was not prevailing among them; bands were playing and cafe lamps were gleaming; people in throngs were walking the streets, laughing merrily, and many heads were poked out of the windows of the houses. It was hard, he said, for him to believe he had just been visiting hospitals where death was occurring.

At Toulon, however, he found an entirely different state of affairs. The streets and shops showed nothing of their former activity and bustle. There were some few signs of life in only two streets—La Republique and La Fayette. Here the shops were open, but elsewhere closed. No business seemed to be the rule, and a visit paid to the outlying sections showed how the dreaded disease had made the streets a solitude.

At one of the hospitals of Toulon the correspondent met with Mme. Dorvan, a lady of wealth, whose name has already been celebrated for her devotion to the cause of humanity. This brave woman has nursed cholera patients in Egypt, Greece and Italy. The correspondent found her passing from bed to bed, administering to the wants of the sick. In conversation with her in regard to the contagious character of cholera, she agreed with the doctors that, under proper precautions, the elements of danger were singularly lessened. The correspondent noticed that the doctors smoked cigars and chewed considerable quantities of camphor.

Dr. Koch, of Germany, it is stated, had visited a hospital which the correspondent passed through, but it is said he did not leave a pleasant impression on the physicians in charge, having had nothing to say. Maybe he was disgusted with the levity of the French physicians. These said of him that he kept his mouth tightly closed in order not to swallow a single microbe.

On the 27th of this month—July—thirty-six deaths were reported as occurring in Marseilles in twenty-four hours. Eleven deaths reported at Toulon in twenty-four hours. Twelve deaths reported at Arles and six at Aix. There is a panic at the latter place.

PROPRIETARY MEDICINES.—Dr. Cobleigh, of Tennessee, discusses the subject of proprietary medicines in the present issue of the MEDICAL NEWS. He takes for his text some expressions that we made a few months ago when discussing these articles. As we said then, we also say now, we think that it is time a halt was called in the use of them by the regular profession. They are not only getting to be a nuisance, but they are harmful. The country is overrun by the agents of the houses manufacturing them. Scarcely a day passes that we do not find our mantle loaded with specimens that have been left, with a message requesting us to examine them. Our time, however, being occupied with matters too important for us to spend time in the examination of such stuff, we immediately order the removal of the specimens to the ash barrel or garbage box. When a physician can not devise formulas of his own in treating cases of disease, which he meets, but must rely upon pharmaceutists or druggists to both devise and make them, he had better discontinue the practice of medicine and enter upon some other business to make a living. No practitioner practices medicine scientifically who prescribes ready prepared formulas. In every case of disease that is treated scientifically reference must be had, in preparing a prescription, to the patient's age, sex, temperament, idiosyncrasies, duration of sickness, severity of symptoms and many other features. No scientific physician, therefore, ever has any "set prescriptions" devised by himself even, much less does he employ ready made preparations of which he can know, at the most, but very little about.

Dr. Cobleigh says in his article that the NEWS "has not been wholly above reproach." While we admit that the charge is not altogether undeserved, yet we claim that the NEWS has been about the least guilty of all the medical journals in advertising proprietary medicines. We would, in fact, discontinue the advertising of them altogether, if only a few of the leading medical journals would do the same. As it is, every medical journal of the country admits the advertisements of these nostrums in its advertising pages, and if we alone excluded them, we would not only deprive the NEWS of the income gotten from the few it does advertise, but would injure it as a medium for legitimate advertising; for advertising agents, who control advertising patronage, would discard it altogether if we drew a rigid line of distinction.

Again and again have we refused advertisements that have been accepted by journals of the highest standing. One occurs to us at this moment which we refused, which has been running for a long time in all the medical journals of the country. Just previous to its thus general appearance, we received an order for its insertion in the MEDICAL NEWS, but declined it, because we regarded it as quackish. To our surprise, however, in a few weeks we found it appearing in every medical journal in the United States. The article thus advertised is an instrument called "Madame La Chapelle's Health Preserver." It is thus said of it: "For preventing" [We quote from the *Med. and Surg. Reporter*, of Philadelphia,] "and overcoming uterine diseases. Preeminently useful during pregnancy. They afford *immediate satisfaction.* Heat and pain in back and pelvis, 'fullness and dragging down,' prolapsed bowels, ovarian weakness, troubles of the bladder and attendant reflex troubles of heart, brain, stomach and liver are *relieved* by their *application.* Indorsed by celebrated physicians. No doctor will fail to recommend or furnish them after knowing their value." Physicians are given an opportunity of making from $2 to $5 on each one.

Our readers will perceive that, while we maintained unsullied the character of the MEDICAL NEWS, as a regular medical journal, in discarding this advertisement, which has been accepted by all the leading journals of the country and is now running in them, yet we have been $30 or $40 a year out of pocket. While we are not inclined to disparage Madame La Chapelle's "Health Preserver," or Warner's "Safe Cure," or "Brandreth's Pills," for they may all be very efficient in their way, and may sometimes prove beneficial to those who are disposed to make use of them, yet we do not regard them as scientific remedies to be employed by the scientific physician. As a curative agent, a remedy productive of relief in the greatest number of cases, Brandreth's Pills have our confidence in preference to the *Health Preserver.* The proprietors of them announce, we believe—we have not read their advertisements recently in the newspapers—that they will cure dyspepsia, liver complaint, constipation, heartburn, dropsy, etc., and we will appeal to any physician if their claims, in these respects, are not probably as valid as those made in behalf of the *Health Preserver*, namely, that it "*will relieve by its application* 'fullness and dragging,' prolapsed bowels, ovarian weakness, troubles of the bladder, and attendant reflex troubles of the heart, brain, stomach and liver,"—"also will prevent and overcome uterine diseases." Our professor of obstetrics, when we attended medical lectures, used to demonstrate to us quite conclusively, we thought at the time, that abdominal supporters or bandages tended necessarily, by their pressure, to press the uterus further down into the cavity of the pelvis, and consequently to promote any disorders having connection with prolapsus. The womb, in its unimpregnated state, being entirely within the bony pelvis, can not possibly be elevated or supported by any truss, or corset, or bandage placed around the abdomen. The only effect such an instrument can have upon it is an indirect one—by its pressure against the abdominal walls, pressing the intestines down upon it, and thus pressing it still further down into the pelvic cavity. Our obstetrical professor, however, used to say that when the uterus had ascended above the pelvis, as the result of pregnancy, that then, with some individuals, a well fitting bandage would give support to the advantage of the woman; and he used to show us the pattern of an abdominal bandage contrived by himself, which an instrument-maker would probably charge about $2.50 to make, providing the woman, for whom it would be intended, did not have ingenuity enough to make it for herself.

The "*Health Preserver*" may be made out of very handsome material—we have never sought to see one—and may have some very beautiful artistic work upon it, but is there any scientific principle involved in it, which was not as fully represented in the abdominal bandage of our professor of obstetrics referred to, or in any bandage of the kind intelligently constructed with reference to giving support to a greatly enlarged and heavy uterus, or abnormally lax abdominal walls? If the application of the former *relieves* prolapsed bowels, ovarian weakness, troubles of the bladder, and affords *immediate satisfaction*, why will not the latter equally so? And if the latter does, should a regular medical journal advertise the former as possessing peculiar powers—announcing it as a newly discovered instrument in medical practice of wonderful efficiency in curing and preventing a certain class of diseases?

But there are some things in the article of Dr. Cobleigh to which we can not assent. An article like extract of malt can not be considered a proprietary medicine. Extract of malt is the same thing by whomsoever made, and there is nothing proprietary in it, as one manufacturer has as much right to make it as another. The trouble with physicians in prescribing it—for it is a very valuable agent, and should be prescribed a hundredfold more than it is—is to know what preparations of the manufacturers are active and what are inert; that is, to be able to distinguish such preparations as possess all the elements which extract of malt ought to have from those which have them in part. The manufacturing of this remedy requires complicated machinery, and skillful and experienced manipulators. It therefore can not be made by the druggist as ordered by the physician, and must be prepared by some company or firm. It is not a matter of concern to the physician by what sort of manipulations or machinery it is made, so that he gets a good article—one, as we have said, that has all the elements entire. Now, an element that is of the utmost consequence is diastase. If a preparation of malt does not have this element to the proper extent, it is almost inert, and will be unsatisfactory in its action. Important, however, as diastase is, we understand that, in the majority of preparations, it is either altogether wanting or very deficient in quantity. Being easily destroyed in the process of making extract of malt, its presence can be maintained in the proper amount only by the most assiduous attention in the regulation of the temperature, preserving a vacuum, etc. If a company, therefore, makes a specialty of manufacturing extract of malt, or, without making a specialty of it, makes it, and has succeeded by the best of machinery, or by new devices, and by the employment of skilled men, in producing a preparation that can always be relied upon as *being extract of malt* with all the elements belonging to it entire and in due proportion, it is very proper to advertise the fact in the medical journals, and assure the profession that in prescribing their preparation they will secure all the effects that should follow upon the use of a genuine preparation. Nor do we see any objections in combining in portions of the preparation cod-liver oil, hops, quinine, iron, etc. If a physician wishes to prescribe the malt alone without any combination, it is very proper for him to do so; but if, along with it, he should desire to exhibit iron or quinine, it is likely that these remedies could be combined more intimately and satisfactorily at the manufactory than they could be at the shop of the apothecary, and certainly very much cheaper. Manufacturers of extract of malt commend themselves to us, who, in advertising their preparations, also announce their readiness to substantiate the genuineness of them in every particular.

Many of the so-called foods that are advertised in medical journals are the merest frauds imaginable. Not a few of them have a number of the essential elements of nutrition eliminated from them, so that an individual, whether a child or adult, would starve to death if fed upon them exclusively. We, at one time, advertised for awhile, one of these frauds, not being aware of its being such, but we dismissed it so soon as we discovered its character. But, if a so-called food or any similar preparation professing to afford nutrition, or to fulfill the indications of a tonic, is precisely what it pretends to be, we can see no objection in advertising it in a medical journal. Bread is a combination of flour, water, yeast, salt, which has been subjected to a certain degree of heat for a definite length of time. There is nothing secret in its preparation, but to make a good article requires skill on the part of the baker, more skill than many would suppose, and good machinery in the way of an oven, etc. Now, if a certain baker is satisfied that he is making a superior article of this delicious and very necessary preparation for sustaining life, it is only right he should inform the public of the fact in order that they may avail themselves of it. In the same manner there is no wrong in manufacturing certain well-known formulas used in meeting certain well-defined indications in diseases, if made of the best articles of the materia medica, and advertising them. But compounding formulas that are to meet definite indications—take the simple example of Dover's Powder or Churchhill's Hypo-phosphites —and devising those that profess to cure a long list of diseases and abnormal functions are quite different. So foods and tonics that are made of well known medicines simply fulfill indications—they can not be classed as cures, unless the cure results from administering food, or supplying elements to the blood that normally belong to it, and consequently are not mere nostrums. If any such do come under the head of nostrums, then we will confess that we believe in some nostrums.

THE MICROSCOPE.—The microscope is certainly one of the most wonderful instruments that has ever been constructed. Not so wonderful as regards its mechanism, for its structure is not intricate. Like the galvanic battery with its telegraph wires, along which signals are sent—the construction of it once known, no very great ingenuity is required to make it. But most wonderful is it, and second to no other instrument, is the value of the discoveries that have been made by it. It has brought to view a world, teeming with life, that without it we would not have known existed. It has brought to view millions of beautiful objects in the sands of the sea, at the bottoms of rivers and ponds, and other localities, which we could not have imagined had an existence. It has developed the structure of organic and inorganic bodies, which otherwise we could not have known, showing that all organisms alike arise from cells—beginning in cells, they grow by these cells, multiplying by division, and, as they increase, differentiating. By the microscope we trace the history of the mould that forms upon the leaf that has fallen to the ground. By it we study the life of the leaf, that of the tree upon which it grows; and, most important of all, by the microscope only can we follow the history of the life and development of the human being from the time the vivified ovum has had its forces set into activity until the fully-formed individual appears with his wonderfully complex organs and their most wonderful functions. To what else are we indebted for our knowledge of histology, physiology, pathology, biology? Without its disclosures the knowledge of the natural sciences would be of the most elementary character. But it is not necessary to state at length what has been done by the microscope, or to enter upon a discussion of the great value it has been in advancing our knowledge of the secrets of nature.

To the physician more than to any other professional person is the microscope of the greatest value. He needs it every day in the practice of his art. It is an instrument of precision with him in diagnosis and prognosis. From day to day he employs it to observe the progress of a case he may be attending. If the cough of a patient, and physical examination, still leaves him in doubt as to tuberculosis of the lungs, the presence of tubercular matter in the sputa confirms the fact beyond a peradventure. Chemistry may disclose albumen in the urine and warrant the conjecture of Bright's disease, but it is established when casts and epithelial cells are seen by the microscope.

It is really often a wonder to us how so many physicians, at this day, endeavor to practice their profession without the assistance of so important and necessary an instrument as the microscope—an instrument which demonstrates facts of the highest value which can be demonstrated in no other way. Such physicians, certainly in treating diseases, can not discharge their full duty to their patients. It is no excuse to assert that it is only within a few years that the microscope has been brought to its present state of perfection, and has been made accessible to all. If it had been only yesterday that it was discovered, the fact that it has been proven to be an important adjunct in diagnosis, prognosis, and treatment of disease, makes it the duty of every physician to daily make use of it. Our fathers in the profession got along without it, it is true. So, also, they got along without the use of the ligature, stethoscope, ophthalmoscope, quinine, chloroform, chloral, antiseptics, and a thousand other instruments and medicines that all physicians regard as indispensable at the present time.

CINCINNATI INDUSTRIAL EXPOSITION.—We hope our readers will keep in mind the *Exposition* which is to be held in Cincinnati this fall, beginning about the first week of September and continuing until some time in October. They should commence to arrange their business with reference to visiting it. The coming Exposition will be the finest ever held in Cincinnati. Besides the large displays usually made in machinery, articles of manufacture, chemicals, geological specimens, merchandise, paintings, etc., which have always been worth coming from a long distance to see, there will be on exhibition the vast display which the government will exhibit at the World's Fair this fall at New Orleans. Eight government bureaus will exhibit, namely, the General Land Office, Indian Office, Pension Office, Patent Office, Bureau of Education, office of the Commissioner of Railroads, Geological Surveys, Census Office. Congress appropriated $125,000 to prepare the displays. Thus it will be seen that there will be brought together in the exhibition buildings the main novelties of the various government bureaus and offices which are to be found in Washington City in many great buildings, and which occupy several days usually to examine. The design of these displays is to indicate the resources of the country, embracing every department of field and forest, shop and factory, mill and mines, lakes and rivers, etc., to show the growth of industrial art and its effects upon the general prosperity of our people, and also the progress that has been made in education and the means adopted for the general diffusion of knowledge among the people.

Everybody should endeavor to be present, for probably never again will there be such an opportunity afforded.

MR. A. A. MELLIER.—Our subscribers have undoubtedly noticed the advertisement of this gentleman in the MEDICAL NEWS. The saddlebags and buggy cases kept on sale by him are remarkable for convenience, elegance and adaptation for their purposes.

There is simply no comparison in the saddlebags and cases sold by him, in the way of convenience, capacity and appearance and those used by physicians in the country a few years ago, while at the same time the price of the former is no greater, if it is not less, than was asked for the latter. The saddlebags are made of one piece, nickel-plated finishings, adding beauty to the appearance, and have no seams or stitches to become ripped in course of time. On each side there is an upper and lower compartment; and there are leather partitions which can be removed at pleasure. If practicing medicine in the country, we would consider the saddlebags and buggy case essentials. We could not submit to the use of the old-fashioned affairs, rude in appearance, and still more inconvenient.

Mr. Mellier also manufactures the remedy known as Tongaline, made of Tonga combined with salicylates—Tonga being a product of the Friendly Islands and introduced into England by Drs. Ringer and Murrell. The preparation is not a cure-all, to be prescribed in certain diseases without reference to symptoms, but it is designed to meet peculiar indications. The diseases in which the indications for its use are generally found, are rheumatism and neuralgia. Tonga itself has attained celebrity in rheumatism, and as all physicians know, such is the case with the salicylates. Mr. Mellier, by combining the two, seems to have made a preparation which is peculiarly effective. The *Medical Brief*, of July, of the present year, thus speaks of Tongaline: "In those forms of neuralgia and rheumatism of a malarial origin, and most seem to be such, I have been highly gratified by the action of Tongaline in conjunction with quinine—the therapeutic properties of both seeming to be accentuated under the circumstances. With each dose of Tongaline I prescribe two to five grains of quinine according to the severity of the case, and the susceptibility of the patient to the effects of the latter. Thus far have not experienced a single failure."

Koch's Microbes.—Dr. Koch has been visiting France examining cholera patients at Marseilles and Toulon. He divests himself of all responsibility of advising about treatment, saying a very little about prevention, stating that he is an observer not a healer. The very little he has said about treatment was dragged from him by a New York *Herald* reporter. As an English journal says, and as all are willing to admit, he is a skilled microscopist, who has devoted close attention to the study of the minute organisms which have of late years been much talked about. When he states that he has seen a microbe there is no doubt of its presence, but it is a long step from its presence to assert that it is the cause of cholera. He distinguished himself in describing a bacillus in tuberculosis, which he alleges to be the cause of that condition; but opinions are very much divided in this country and in England, if it is not with certain parties in Cincinnati, as to its significance and effects. The idea of the production of cholera by an intestinal microscopic fungus is by no means new, having probably first been suggested, as stated by the *Lancet*, by the late Dr. Wm. Budd in a letter which he contributed to an English journal during the epidemic of 1848–49. Ultimately the opinion seemed to be that his fungi were particles of chalk which had been administered to the patients in the form of chalk mixture. Our readers will recollect that Prof. Schmidt, of New Orleans, some months ago pronounced Koch's tubercular bacilli crystals of fat, and made a very plausible demonstration of it, as we showed at the time in the MEDICAL NEWS. It is quite probable, we think, that Koch's cholera microbes are the fungi pointed out by Dr. Budd. Care should be taken that a grand mistake is not made in accepting Koch's possibly erroneous inferences as demonstrated truths. Such is the judgment of others besides himself.

URINARY TEST PAPERS.—Messrs. Parke, Davis & Co., of Detroit, have put into practice the suggestion of Dr. G. Oliver, of Harrowgate, Eng., that slips of paper might be impregnated with the various reagents employed in testing urine for albumen, sugar, etc. The firm mentioned have constructed a pasteboard case which can be easily carried in the vest pocket so as to be always ready at hand. This little case contains slips saturated with the following solutions, each slip being about an inch long and a quarter of an inch wide: Potassium ferrocyanide, sodium tungstate, citric acid, potassio-mercuric acid, picric acid, sodium carbonate, indigo litmus. To test for albumen, add to about 30 minims of the urine a citric acid paper, then, afterwards, drop in either one of the slips of picric acid, sodium tungstate, potassium ferrocyanide or potassio-mercurio iodide. The test for sugar can be made by these slips so as to make use of either the *Picric Acid Test* or the *Indigo Test.*

The price of one of these cases supplied with enough slips to make, we would suppose, 75 or more examinations, is only 50 cents.

We are indebted to Messrs. Parke, Davis & Co. for a beautiful case covered with leather, with name across the top, of a size to conveniently carry in a side pocket, closing with a spring fastening. This has a compartment in which accurately fits the urinary test case above referred to; a compartment containing a glass dropper graduated to minims from 6 to 20; a third compartment wide enough for a test tube, 5 inches long, graduated to minims and drachms, this tube having slipped into it a plain test tube, and the latter has slipped into it a stoppered vial having several glass beads or drops, by the use of which the sp. gravity can be approximately estimated. The case and contents constitute quite a gem, and answers all the purposes of a ten to twenty-dollar urinary test case.

DECEASE OF DR. L. A. JAMES.—Dr. L. A. James, for over thirty-five years a practitioner of medicine of Cincinnati, died at his residence on Price's Hill, of this city, July 25th. He was born April, 1824, at Rising Sun, Indiana. He graduated in medicine at the Medical College of Ohio, and began the practice of medicine in Cincinnati, which he continued, except the three years he was in the army during the late war, until two or three years previous to his decease, when his shattered health incapacitated him for the performance of any labor.

Dr. James was well and favorably known in the profession of Cincinnati. He was a quiet, unobtrusive gentleman, disposed to attend exclusively to his own business. He never took part in any public affair, and never sought to make himself prominent, and was, therefore, comparatively but little known. His social nature, however, was strong, but not such as to cause him to cultivate the acquaintanceship of many, so that he might be met with where there was a crowd, or be found in club-rooms; but he seemed to delight in the company of personal friends to whose association he almost entirely limited himself.

All who knew him regarded him as a reliable, honorable gentleman, not disposed to take any wrong advantage of any one or injure any one. Although he never contributed to the pages of medical journals, yet he was regarded as a good physician—having a fair knowledge of medicine and ability to apply it. During the late war he entered the volunteer service, and was appointed surgeon to the 4th Ohio Cavalry, commanded by Colonel Kennett. He served in the army for three years. During a large portion of the time, he acted as Medical Director of Cavalry. In the management of his office as Medical Director, we are informed by Dr. Clendenin, who was Medical Director to the Department of the Tennessee, he displayed very great executive ability, discharging his duties with judgment and skill.

For several years previous to his death he became subject to most violent and excruciating attacks of neuralgia, which completely shattered his health and led to his final dissolution. His bereaved family have the profound sympathy of all who knew him.

INSANITY OF GUITEAU.—Dr. Hughes' journal, of St. Louis, the *Alienist and Neurologist*, is still "harping" on the question of the insanity of Guiteau, the assassin of President Garfield. In the last issue is reproduced the *exquisitely sublime* poetry which Guiteau read upon the gallows a few minutes before he was swung off into another world. Guiteau said that he wrote it about ten o'clock on the morning of the day he was hung. He said in regard to it, "I am going to read some verses which are intended to indicate my feelings at the moment of leaving this world. If set to music, they may be rendered very effective. The idea is that of a child babbling to his mamma and his papa."

That our readers may judge at their leisure to what extent the lines are evidence of insanity on the part of the assassin we will reproduce them. They are entitled

"SIMPLICITY."

"I am going to the Lordy, I am so glad.
I am going to the Lordy, I am so glad.
I am going to the Lordy,
Glory hallelujah! Glory hallelujah!
I am going to the Lordy!

"I love the Lordy with all my soul,
Glory hallelujah!
And that is the reason I am going to the Lord.
Glory hallelujah! Glory hallelujah!
I am going to the Lord.

"I saved my party and my Lord,
Glory hallelujah!
But they have murdered me for it,
And that is the reason I am going to the Lordy,
Glory hallelujah! Glory hallelujah!
I am going to the Lordy!

"I wonder what I will do when I get to the Lordy?
I guess that I will weep no more
When I get to the Lordy!
Glory hallelujah!

"I wonder what I will see when I get to the Lordy?
I expect to see most splendid things,
Beyond all earthly conception,
When I am with the Lordy!
Glory hallelujah! Glory hallelujah!
I am with the Lord."

DRUGS AND MEDICINES OF NORTH AMERICA.—This is the title of a quarterly publication published and edited by J. U. and C. G. Lloyd, 180 Elm Street, Cincinnati, devoted to the medical, pharmaceutical and botanical history and description of American drugs and the plants yielding them. Each number contains full plate illustrations of all the principal American medicinal plants, and full illustrations in the texts, including original pictures of the parts used in medicine. It begins with the first natural order, Ranunculaceæ, and will consider each plant in its natural sequence. Price, $1 a year; 30 cents a number.

We have received the first and second numbers, and the beautiful plates and illustrations surpass all that has been promised in the prospectus. The work is not only a credit to the projectors but to the city.

HYPOPHOSPHITES OF LIME IN CANCER.—The following is Dr. Hunter McGuire's formula for the use of hypophosphites of *lime* and *soda* in cancer of the breast:

℞	Hypophosphite of lime and soda,	℥ ss.
	Diluted phosphoric acid, . .	ʒ ss.
	Distilled water, . . .	℥ viij.

M. Sig.—Teaspoonful in water three times a day, and when indicated, he sometimes uses in addition *arsenic* and *iron* in the forms of chlorides of *arsenic* and *iron*.

There can be no doubt the progress of the cancer can be delayed by the use of this combination.—*The Analectic.*

THE
CINCINNATI MEDICAL NEWS.

VOL. XVII. No. 200. Old Series. | AUGUST, 1884. | VOL. XIII. No. 8. New Series.

Original Contributions.

Primary Rheumatic Carditis.

BY E. A. COBLEIGH, M.D., ATHENS, TENNESSEE.

In reading a recent work on rheumatism, I find the author says that, "as yet, though it is highly probable cardiac affections of rheumatic character may precede, accompany at the outset the joint troubles, or possibly exist as the only rheumatic manifestations, still the number of cases going to prove this fact is not yet sufficient to establish a scientific truth." Wherefore it may be of interest to your readers for me to report the following case as bearing directly on this subject, and adding one to the already existing list of cases which go to prove the foregoing assertions.

May 11, 1884, I was attending a case of tedious, but uncomplicated labor, when a young fellow, just about grown, was brought to the residence where I was detained, by his father, who called me out to prescribe for him. He was complaining since supper the previous night of utter loss of appetite, tongue slightly coated, some nausea, very slight increase of temperature, pulse rather quick but weak, with very slight præcordial oppression and heaviness, but no respiratory disturbance and no intra-thoracic signs of actual disease there, as developed by auscultation. Thinking the attack one of acute indigestion, I prescribed a few simple remedies appropriate for that condition and dismissed the patient. I will add here that I knew the youth well, am his family physician, and knowing him to be a stout boy ordinarily, with no previous heart or lung disease, and no admitted cause for the ailment then existing, I expected him to be sound and all right in a day or two at most.

About 3 P. M. (the first meeting between us was near 5 A. M.), I was sent for to visit him and found the boy with high fever, bathed in perspiration, suffering great oppression about the heart, pain over sternum, labored respiration and the chest walls heaving under the force of the excited cardiac beat. He had had chilly sensations three or four hours previously, but no pronounced rigor. Insisted that he "was choking to death." Now there was no trouble in detecting a very marked endocardial murmur, but if any friction sound occurred, it was drowned by the intensity of the sound aforesaid, and no other physical signs existed pointing to involvement of the pericardial membrane. But from all of the symptoms collectively, I diagnosed co-existing endo and pericarditis. The most careful questioning failed to elicit any history of rheumatism in the past, affecting any member of the family. Nor were there then any indications, however slight, of a rheumatic constitutional disease in my patient, except perspiration and the urinary condition, and the latter at least might have resulted solely from the fever. The weather was not and had not been, such as stands in a supposed causative relation to rheumatoid seizures, and I could not possibly see any basis on which to build a theory of rheumatic carditis, though I suspected it and stated my suspicions to the boy's parents, who were very intelligent people, and in this shape I left my patient after prescribing such (non-specific) remedies as I considered indicated.

At 11 P. M., the boy's father called at my house to ask re-direction about the remedies to be given during rest of night, as part of my directions had been misunderstood or forgotten. "There is no further doubt about that being rheumatism," was his first remark. "Within the last two hours his ankles have swollen stiff, and he can't bear to have them moved or even touched." These statements I verified by personal inspection, demonstrating to my entire satisfaction the well marked existence of acute rheumatic arthritis. Later the left knee and hips were slightly involved, but only slightly and within a few hours, for he was at once put on the free use of salicylates and an alkaline course, which controlled the arthritic manifestations within twenty-four hours. He now admitted falling out of a capsized boat about a week before his seizure, by which mishap he was wet to the skin. He went home and changed all of his clothes except his shirt, and this he retained because he could not get a dry one without telling his mother of the accident, and this he would not do, having been previously ordered to keep away from the creek.

The medicines first used were persevered in with moderate decreasing doses for about a week, and then, no further trouble being felt, were discontinued without my consent. The day previous to their discontinuance I had seen the patient and found the murmur over heart still very distinct, though rhythm, force and area of dullness seemed normal. Within a few days from this time the boy was going about the neighborhood seemingly as well as common, except that he was "short winded" on exertion, when, after an unusually hearty supper (including acid fruits and vegetables), the weather suddenly changed to rain. Before bed time, my patient was seized with cardiac distress and dyspnœa, of considerable intensity, and ankles simultaneously swelled and became so painful and tender as to resent the slightest touch or motion. I at once administered a quick emetic and thus got rid of the superfluous pie, etc., remaining in his stomach from the immoderate meal of a few hours before. This relieved the dyspnœa, but an amount of palpitation remained demanding cardiac sedatives for its control. However, this was soon accomplished, a return to salines, diuretics and salicylates subdued the pain and swelling of the joints, and the boy progressed to rapid and satisfactory recovery save only the valvular mischief previously incurred. Since then he has been doing reasonably well, with apparent return to his usual health, except slight dyspnœa on over-exertion, and trivial joint threatenings preceding a storm on only two occasions.

This is one of those cases where the fact is indubitable, that the cardiac affection preceded by several hours at least the arthritic manifestations of true rheumatism. The fibrous structures of the valves and probably the serous surfaces of the pericardial membrane (though no positive objective signs of the latter condition were ever discoverable), were seriously and extensively invaded by morbid processes, the results of which persist until to-day, in spite of energetic and approved treatment, and will doubtless progressively increase—so far as the present valvular lesion is concerned—for years to come, or until a far off fatal result ensues therefrom. Now *if* the arthritic explosions had failed to appear later, *if*—as is easily supposable, the disease had remained fixed to its primary seat, instead of extending its local points of attack to the lower extremities, we would have had a case of rheumatic fever all the same and of high intensity, but perhaps never recognized in its true light, the fever being naturally referred to the activity of the acute heart inflammation as a symptom or part thereof. In fact, there would have been an inflammatory rheumatism of the heart alone. Does such a thing really occur? In the light of this case, and calling now to mind other cases of acute heart diseases, whose etiology was at the time of their occurrence under my observation involved in doubt and mystery, I can but believe that primary idiopathic cardiac rheumatism does really occur, and doubtless does so far more frequently than professional tradition would lead us to think.

On Paroxysmal Fever—Not Malarial.

BY J. H. MUSSER, M. D.

Physician in charge of the Medical Dispensary of the Hospital of the University of Pennsylvania. Pathologist to the Presbyterian Hospital.

Read before the Philadelphia County Medical Society, March 26, 1884.
Reported for the MEDICAL NEWS.

THAT non-malarial intermitting fever is of frequent occurrence few will deny. Such cases have come to the writer's notice so often, that, especially as but little can be found in reference to this subject in medical literature, arranged in a systematic manner, he has deemed it of the highest practical importance to record his observations, for the purpose of emphasizing the value of distinguishing these two forms of intermitting fever. In addition to the hurried narration of illustrative cases, a little time will be taken for the consideration of the mode of recognition of the many sources of origin of paroxysmal fever, and a moment given to the mechanism of fever. It will not be out of place, however, to make a brief reference to the writings of others in this connection, and first to that of the late Dr. Murchison.

In a most instructive clinical lecture,* he called attention to all the forms of paroxysmal fever, giving twelve varieties, viz.: 1. Malarious intermitting fever. 2. Certain cases of typhoid fever. 3. Certain cases of relapsing fever. 4. Pyæmia. 5. Fever from pent-up pus. 6. Fever from ulcerative endocarditis, with or without embolism. 7. Tubercular fever. 8. Fever from lymphadenoma. 9. Syphilitic fever. 10. Urinary intermitting fever. 11. Hepatic intermitting fever. 12. Intermitting fever from morphia.

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*The causes of intermitting or paroxysmal pyrexia, and on the differential characters of its several varieties. Lancet, May 3, 1879.

In addition to examples under each division, he pointed out the clinical features and points of distinction in such detail that it would be supererogatory to enter upon such lines, save in the broadest manner, in this paper.

In the following pages, therefore, cases illustrating the second, fifth, sixth, seventh, and eleventh classes, respectively, of the above, will be recorded, and some new classes will be added, embracing cases of paroxysmal fever due to gastro-duodenal and pulmonary catarrh, to pent-up serum, to forming pus in a confined space.

Since this paper has been in preparation, a volume of the latest St. Thomas Hospital Reports (vol. xii, '81) came into the writer's hands. Of the many able articles contained therein, there is one by Dr. Ord entitled, "On some cases of Pyrexiæ simulating ague." He records a case of ulcerative endocarditis, and one of jaundice with obstruction attended by intermitting fever. Similar cases are detailed below, and hence it will not be necessary to more than refer to them. Cases III and IV of his list are very interesting, and worth repeating in abstract.

Case III.—Female, æt. 58. Most of life in Mauritius. After returning to England suffered from what was called ague—shiverings, heats and sweatings at irregular intervals. At first no pain, but finally increasingly severe pain, attended with vomiting, was felt in the left iliac region. The symptoms repeatedly recurred for months and were regarded as outbreaks of latent ague acquired abroad. Treatment by quinia and arsenic. She finally, after a severe paroxysm, passed a stone the size of a bean from her bladder. Instant relief followed and six months passed away (to time of writing) without any return of fever or sweating.

Case IV is more remarkable, and for the possibility of its like appearing to us, it should be kept in mind.

Case IV.—A man, æt. 30, never in the tropics, had daily attacks of high temperature, with shivering and sweating.

He was sallow, worn and emaciated. His liver was enlarged; his spleen not. He had syphilis. The fever would be reduced by quinia, but only for a time. Thirty grains of iodide of potassium daily cured him, the intermitting fever having been considered by Jenner, in consultation, a manifestation of syphilis.

I. The temperature curve of typhoid fever simulates intermittent fever almost always at some period of its course. During the first week of the disease it is a difficult matter to decide whether a true intermittent is present or not, while in the decline of the disease a distinctly intermitting type is generally recognized. During the period of convalescence one must be watchful that the transient fever which so frequently develops, may not be considered malarial. The temperature during the course of typhoid fever, and the convalescence from it, is, as Dr. Cayley puts it, *labile*. It rises and falls with only the slightest provocation, and frequently takes on an intermitting type.

The following is a rare case of typhoid fever, in which the temperature at the height of the disease was distinctly intermitting. Dying the sixth day of observation, it was noted that four days before death the patient had daily a congestive chill, followed by a very high temperature. The temperature on the morning of the first chill was $101\frac{1}{5}^\circ$ (Fahr.), the evening $104\frac{2}{5}^\circ$. The morning temperatures thereafter were on the second, third, and fourth days, respectively, $96\frac{3}{5}^\circ$, $99\frac{2}{5}^\circ$ and $96\frac{1}{5}^\circ$, and on the corresponding evening hour $104\frac{3}{5}^\circ$, $105\frac{2}{5}^\circ$ and $106\frac{2}{5}^\circ$, the latter two hours prior to death. It was considered a case of congestive malarial fever. The autopsy revealed the lesions of typhoid fever about the twelfth day of the disease.

II. It is well known that the fever from pent-up pus is frequently, almost constantly, of an intermitting type. An empyema has frequently been overlooked on this account, but it has never fallen to the writer's lot to have a case that could not easily be recognized. It was different in other cases of deep abscesses, however, and notably in a case—the true nature of which, Murchison says, is almost always overlooked—a case of hepatic abscess.*

The patient, a male, 39 years old, had lived on the Susquehanna, near Harrisburg, and had had chills and fever daily, three weeks prior to admission to the hospital.

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*Trans. Path. Soc., vol. viii.

When admitted he did not seem very sick; he had walked to the hospital, and was permitted to be up each day. He was slightly emaciated and his liver was enlarged. He had daily paroxysms of fever, but the sweating stage continued all night, being more prolonged than in malarial intermittents. He died of hemorrhage from the bowels, one week after admission. The hemorrhage was found to be due to extensive ulceration of the large intestine, not suspected during life, on account of the occurrence of constipation. In addition, at the autopsy a large abscess in the right, and two small ones in the left lobe of the liver were found.

The following table exhibits the temperature record, and shows that we should have considered more seriously the low febrile range:—

	A. M.	P. M.
October 9,	99°	100°
" 10,	99°	101°
" 11,	99°	102$\frac{3}{5}$°
" 12,	99°	101$\frac{2}{5}$°
" 13,	99°	102°
" 14,	99$\frac{3}{5}$°	101°
" 15,	98$\frac{2}{5}$°	99°

The history of residence in a malarious locality, the temperature record, the absence of marked local symptoms and of intestinal disorders, favored malarial intermitting fever; the absence of enlarged spleen and the low temperature range negatived that fever.

A child was seen with a history of daily febrile paroxysms, suspected to be malarial. The child had a severe paroxysmal cough, however, and was losing flesh and strength rapidly. An examination revealed the physical signs of circumscribed pulmonary consolidation, and the mother related the swallowing of a tack some time previous. Ten days afterwards, after a paroxysm of coughing, the tack and a large amount of pus were expectorated. The hectic soon lessened, the resulting cavity rapidly closed and the patient's health was restored. Another example of deep-seated abscess.

Abscesses developing near mucous surfaces are ofttimes very puzzling, at least in their early period.

An abscess of the prostate gland, in a man 48 years old, was one of the most difficult to discern. The patient had been sick a week, and when seen by the writer was in the midst of a febrile paroxysm. He had marked gastro-intestinal derangement, with dry, brown tongue, extreme malaise, daily febrile paroxysms, preceded by chilliness, and followed by profuse sweats, which continued in the night; in addition a dullness of intellect was observed. Six days after the first visit urinary tenesmus was noticed, subsequently rectal distress; an examination revealed a distinct prostatic abscess. It is of interest to note that fever did not occur after the abscess had fluctuated and hence that the forming stage of an abscess sometimes is attended with paroxysmal fever. The following exhibits the evening rise and morning fall, taken on different days:—

13,	4 P. M.,	$102\frac{3}{5}^\circ$,	
14,	4 P. M.,	$99\frac{1}{5}^\circ$,	cinch. anticipated.
15,	12 M.,	102°,	cinch. in lessened doses.
16,	12 M.,	$98\frac{1}{2}^\circ$,	cinch. in increased doses.
17,	11 A. M.,	98°,	cinch. in increased doses.
18,	5 P. M.,	103°,	cinch. in again lessened doses.
19,	9 A. M.,	$98\frac{1}{2}^\circ$,	5 P. M., 103°.

A febrile paroxysm was not detected after the 20th, and the table shows that cinchona merely prevented the paroxysms, but did not control them. The case was certainly difficult to analyze. The absence of enlarged spleen, the return of the fever after discontinuing cinchona, and the exhaustive sweats, repulsed the idea of malaria. The appearance of the tongue, the malaise, the headache, and the dullness of mind, with the fever range, made one consider typhoid rather seriously. On the sixth day (19) after my first visit the local symptoms defined the lesion. The febrile action then ceased, but the local inflammatory condition continued. It would probably explain the cessation of fever with complete suppuration to say that the soft tumor was not so much an irritant as the hard mass prior to pus formation.

Not only must pent-up or forming pus be considered factors in the causation of a periodical fever, but confined serum or forming serous exudation may undoubtedly give rise to intermitting fever. A case of subacute pleurisy with effusion, in which there occurred in the course of the disease distinct intermitting fever, came under the writer's notice. The usual evening exacerbations were present, but in the morning the temperature had fallen to, or almost to, normal. So marked were the paroxysms that an empyema was suspected, and doubt only removed by paracentesis proving the effusion to be serous. Two similar cases have come to his notice in private practice, both in children. The one, a lad 11 years old, had a dry cough for three weeks, with afternoon malaise and fever. The attendant ordered quinine with but little benefit. An examination of the lungs revealed a large collection of fluid in the left pleural sac, which rapidly disappeared under treatment. The temperature was recorded but once daily for obvious reasons, but at times in the mornings, again in the evening. Invariably an evening rise, a morning fall, were noted; but it never ranged higher than 102°, and there were no profuse sweats following. From the rapid disappearance of the fluid and the speedy renewal of the lad's health, the effusion was called serous and not purulent.

It may seem very trite to record such simple cases, but when, only lately, a child was seen in consultation, ill from a supposed meningitis, but truly so from an actual serous pleuritic effusion, one should feel that nothing is commonplace, and that it is the little things that need to be constantly dwelt upon. With this remark it may be stated that the fever of pneumonia may be intermitting. Later in the paper cases of catarrhal pneumonia will be referred to, but now the croupous variety is considered. Four cases, all in children, are recorded in the writer's note-book. Two of the cases were in his care from the first; two were attended by other physicians coming to him later.

In the first case he was egregiously deceived. The child, æt. 4, for five days was well to all intents and purposes, in the morning, eating and playing about with possibly only a slight cough. In the afternoon the temperature would rise to a great height ($104\frac{2}{5}$°), and the child would be sick until midnight. Repeated examinations of the lung could not detect a pneumonia until the fifth day. He was misled by the absence of dullness and of bronchial breathing, and the occurrence of tympany over the affected lung, as has been rarely noted.

Case number two, of the same character, occurred in a girl 7 years old. A chill, followed by high fever, with nausea and vomiting, substernal pain and cough, marked the onset. Seen the third day, her temperature in the evening was $104\frac{1}{5}$°, with the above symptoms intensified, and a very rapid pulse (140) and rapid respiration (48). Both the fourth and fifth days the temperature was normal in the morning, high at night. On the fifth day bronchial breathing was first noted at the right base; on the seventh day, dullness; on the ninth day resolution began; after the fifth day the fever was continuous. It seemed like a case of retarded pneumonia—as regards physical signs—according to the observation of Dr. Andrew Clark.

Following the outline indicated by Murchison, the next form of intermitting fever he discusses is that due to endocarditis. The following case* of ulcerative endocarditis, the febrile range of which was characterized by daily paroxysms, is of interest. There was no difficulty in recognizing the nature of the affection.

TEMPERATURE RECORD.

	A. M.	P. M.
21, ...	1—	$103\frac{2}{5}^\circ$
22, ...	$100\frac{1}{5}^\circ$	$101\frac{3}{5}^\circ$
23, ...	$98\frac{2}{5}^\circ$	99°
24, ...	98°	$105\frac{2}{5}^\circ$
25, ...	$97\frac{1}{5}^\circ$	$103\frac{1}{5}^\circ$
26, ...	99°	103°
27, ...	99°	$100\frac{2}{5}^\circ$

The writer observed it during life, and deems it worthy of being recorded in this connection.

It would be a great surprise to know how many persons, in the latter stages of phthisis, when giving a history of their complaint, say that it was preceded by malaria or malaria broke them down. Over and over again is such a sad tale told us in the medical dispensary, and it is a matter of fact that not only do the laity, but many physicians consider early cases of phthisis as malarial in nature, entirely overlooking the local troubles. When speaking of catarrhal fever, the subject will be adverted to again, but the cases of tubercular origin are sometimes none the less examples of intermitting fever, non-malarial. Repeatedly my notes show cases that had been treated for malaria in the early stages. Not only in the formation of tubercle in the lungs, but also in the brain, is the process accompanied by daily paroxysms of fever at times. One case that came under notice was particularly impressive.

The attending physician was going out of town for the summer, and left in the writer's care a little girl 5 years old, in the fourth week of her fatal illness. She had always been a bright child, of nervous temperament and of tubercular diathesis. The illness was of four weeks' duration, marked in the early period by failing in flesh and strength, in the latter period by a chill or chilliness every evening, followed by a night of restlessness and fever. She never complained of headache, nor did she vomit, while her bowels were regular. Eight days before the present attendant saw her, her physician visited her, and attributed the symptoms to malaria; quinine was used. Four days thereafter headache began. The day the writer saw her (fourth week), she had had a slight convulsion and other unmistakable evidences of tubercular meningitis, of which she died in seventy-two hours.

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*Trans. College Physicians, Keating.

How terrible to be compelled to tell a fond mother the innocent malaria only simulated the baneful meningitis. The writer once made the mistake of attributing a periodical headache to malaria; tubercular meningitis was the cause of the pain. It is seen then, and is well known, that many manifestations of that disease are periodical.

The succeeding cases of chronic hepatitis with enlargement illustrates that form of intermitting fever, which is hepatic in origin. The diagnosis was made without difficulty, especially the differentiating from the intermittent fever of malarial origin. The following abstract of the history includes all the important points:—

George W.,* æt. 43, German farmer, of Manayunk, contracted diarrhœa during the war, which has always shown some tendency to return. Has had malarial; probably has had syphilis; otherwise been very healthy. Family history good. Admitted September 2, 1877, with well-marked jaundice; emaciated, and presented the symptoms of itching, dark colored urine, languor and sleepiness, and a small, slow and feeble pulse.

The jaundice appeared gradually in February of 1877, preceded by several days of diarrhœa. Since then marked dyspeptic symptoms, relieved by attacks of diarrhœa; stools at times clay-colored, at times normal. Some œdema of feet, but ascites never detected. October 2, liver from fourth interspace to two inches below margin on deep percussion, margin smooth and resisting; no pain or tenderness. October 15 to 25, uncontrollable hiccough. Extreme exhaustion, rapid emaciation, deepening jaundice, semi-typhoid state; death, November 4. Autopsy revealed the diagnosis to be correct.

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* Trans. Path. Soc., 1878.

The temperature record is noted with the remarks of Dr. Guiteras, whose resident physician the writer was at the time, on its curious range, in order to associate the case with a paper on fevers.

	Morning.	Evening.
October 21, . . .	100°	98°
" 22, . . .	98°	103°
" 23, . . .	$95\frac{2}{5}$°	100°
" 24, . . .	$101\frac{2}{5}$°	96°
" 25, . . .	93°	101°
" 26, . . .	95°	$94\frac{3}{5}$°
" 27, . . .	103°	98°
" 28, . . .	$95\frac{1}{5}$°	100°
" 29, . . .	97°	$98\frac{2}{5}$°
" 30, . . .	97°	98°
" 31, . . .	$94\frac{2}{5}$°	96°
November 1, . . .	99°	93°
" 2, . . .	95°	$96\frac{3}{5}$°
" 3, . . .	$91\frac{2}{5}$°	91°

"I find that every third temperature is pretty regularly a high one, the fall being very great in the two intervening temperatures; so that the rise and fall do not present the usual relation to the morning and evening hours. The curious range of temperature may be due to an intermittent absorption of effete products from the liver, or an intermittent arrest of the oxygenating processes going on in the liver, and arrest that must influence the general temperature, if we remember that in health the temperature of the organ reaches 106°."

In another paper* of the writer may be found reported a case of primary cancer of the gall bladder.

Early, in fact almost until death, the attending fever was thought to be of malarial origin. The writer, as well as others, made the mistake. Until a few months before her death her fever was distinctly intermitting, with chills; later it became remitting and then continuous. Although there were jaundice and occasional attacks of vomiting, there were no special evidences of localized disease. The spleen was enlarged, and so it was thought to be a miasmatic fever.

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* Path. Soc. Trans., Phila., '81.

The change in type, the extreme exhaustion and the emaciation caused this idea to be abandoned. Until death it was obscure. A sufficient cause for the temperature range was found at the autopsy in a suppurative inflammation of the bile ducts, and the healthy portion of a gall-bladder, the remainder of which was the seat of carcinoma. One can see now that more stress should have been laid on the occasional vomiting, the slight hepatic tenderness, the previous history of biliary colic, the persistent and deepening jaundice, and the great emaciation, and thereby a diagnosis been made between miasmatic fever and suppurative fever.

Here will briefly be recorded two cases illustrative of the fever of hepatic origin, not because of one difficulty in their recognition, but because one of them, the first, had been treated for malaria.

This one was the case of M. Mc., æt. 50, who suffered at irregular intervals, often repeatedly in a week, with attacks of severe pain in the epigastrium accompanied by a chill and followed immediately by fever and sweat, and in a few days by jaundice. He died several months afterwards, in the writer's care, of obstructive jaundice from impacted calculus, after two of these attacks in succession.

When these attacks occurred, every day or every second day, it can be readily seen how a mistake in diagnosis could have been made. Attention to details, however, with the therapeutic test would have been good aid. The paroxysms, by the way, were no doubt due to the irritation of the discharging calculus. The other case was that of an impacted, possibly ulcerating biliary calculus. The history of the case, the jaundice and the local inflammatory changes prevented one from erring.

In addition to the preceding examples of paroxysmal fever, a series of cases will be adverted to which Murchison has not referred to in his lectures, and with the nature of which it is of the utmost importance to be perfectly familiar. Reference is made to catarrhal inflammations of pulmonary, the gastro-intestinal, and the genito-urinary mucous membranes, with secondary intermitting fever resulting therefrom. Especially important is it, for unless the fever is traced to its source, grave organic mischief will become so pronounced as to lead to disastrous consequences. Witness a phthisis following an overlooked bronchial catarrh.

It savors much of the teachings of Broussais, to say that catarrhs are the source of fevers, but there is no doubt that just so far as the philosophic Frenchman erred in that extreme, so do we at the present day err in the other, by attributing most fevers to a zymotic process. Prof. Pepper,* in a timely and instructive address, calls attention to these dangers: That fever is too often considered as due to a zymosis; that zymotic diseases are of self-limited duration; hence that active treatment is of no avail and especially that the accompanying catarrhs are neglected. Further, on account of these beliefs, the catarrhal process that is often the cause of a fever is overlooked, and thus the commencement of serious local disease is not thwarted.

Reference was made, in another portion of the paper, to the frequency of assuming early tubercular disease of the lung accompanied by intermitting fever, to be due to a miasmatic fever. The following notes illustrate the clinical course of some cases of catarrhal disease of the air passages, which often are the forerunner of so-called catarrhal phthisis. Other examples have been noted, in which there has been only slight catarrhs, without hemorrhage, much cough or emaciation, with attendant fever, occurring in paroxysms.

One of the most typical cases of paroxysmal catarrhal fever came under observation in August, 1880, and was the first to lead to the investigation of this question.

A man, 40 years old, of previous good health and habits, of good family history, and residing in a healthy neighborhood, sought advice for "chills." Daily at 11 A. M. he would have a chill, followed by fever and sweat. The entire paroxysm continued until 6 P. M. His digestion was impaired, and his bowels were constipated. The usual treatment was employed. He reported twice that the chills had ceased to return at once when the medicine was finished. He also reported that his sweats continued throughout the night, and that he was losing flesh and strength. At the third visit he was much dissatisfied, for a former slight cough had grown more pronounced, he had bloody mucous expectoration, and the chills continued. Upon careful examination a distinct area of consolidation at the root of the right lung with attending blowing breathing, and some subcrepitant rales were found. Active treatment was determined upon, and in six weeks the patient was cured. He has followed his occupation ever since (engineer), is heavier than he ever was, and in perfect health.

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* On some of the relations of catarrhal affections. Trans. Am. Med. Assoc., 1881.

Further: A young miss of 20 years, the past winter, was conducted through an attack similar in many respects. Originating in a severe cold, with harassing cough, chest pain, no expectoration and with loss of appetite, nausea and constipation; she lost flesh, and had, the first two weeks of her illness, daily morning chilliness, fever in the afternoon (102°), followed by an exhaustive sweat. During this time the physical signs of a bronchitis were present, with marked localization of the inflammatory process at the right apex. A day of undue exposure and exertion was followed by a severe chill and rapid rise in temperature, with distinct evidence of catarrhal pneumonia at the location indicated above. Chills and fever daily, profuse sweats, emaciation and gastric derangement were prominent for two weeks. The former symptoms then subsided, but it was fully two months before the lung cleared up, and the patient gained flesh and strength. The family and friends constantly reiterated their opinion that the attack was primarily malarial.

Probably the most difficult, the most occult form of paroxysmal fever of catarrhal origin to recognize, is the one due to that lesion of the intestinal tract. There are no physical signs to betray it, and generally the intestinal derangement is considered secondary to the febrile process. It seems impossible to distinguish the specific from the catarrhal form, save by the presence or absence of the enlarged spleen, the change in the urine of malarial subjects and of the blood when the malaria is chronic, especially when a recent writer tells us that epigastric pain, vomiting and constipation are symptomatic of malaria in children. The following record is a typical illustration of this variety, and is a most instructive and pertinent case:—

E. M., æt. 5. Inherits a tubercular diathesis from mother. During November and December of 1881 had no appetite, was obstinately constipated, and lost flesh. She became delicate and puny-looking. The latter part of December she was seen on account of the above symptoms and of an irregular fever. The course of the fever was at first difficult to determine, but finally it was found to be distinctly intermittent. She was visited at various hours of the day, and found that at 11 A. M., daily, she would be cold, shivering and begging for extra covering. Her extremities, nose and ears would be very cold, her lips bluish, and the features pinched. At the same time the pulse would be rapid and the temperature in the mouth 102°. In a half hour the exterior warmed, and very soon she would have high fever, the temperature rising to 103°–103½°. The febrile stage lasted three or four hours, and was not followed by profuse perspiration. Save weak and without appetite, by night she would be perfectly well. Quinia was given in continuous doses at first, afterwards in doses to anticipate the paroxysm; but without any good effect. The paroxysms were lessened in severity only while the already poor appetite was made poorer and the digestion more impaired; for two weeks an anti-periodic treatment was continued, and at the same time laxatives were used to overcome the constipation; at this time (January, 1882) she was thin and worn, the paroxysms of fever were daily, the appetite was very poor, the breath offensive, the tongue covered on the dorsum with a yellow-white fur, pointed, and with no papillæ; vomiting occasionally occurred, and always some pain after eating; the bowels remained obstinately constipated. It seemed to me, after a time, the fever was a secondary matter, that the gastro-intestinal disorder was primary, and that such disorder was subordinate to the diathetic constitution. Hence she was placed on small doses (⅛ gr.) calomel with bicarb. of soda (5 grs.) every three hours. In three days cod liver oil with syr. of the hypophosphite of lime was added to the treatment. At once she began to improve; her appetite first, then her bowels became more regular. In two weeks the child rapidly improved under this treatment, after being treated previously for more than two weeks for malaria. It may be added here that twice or three times E. became constipated with similar febrile symptoms noted above, and that the parents, without my advice, cured her with the cod liver oil mixture.

A case very similar to the above was also seen. It is useless to report the details of the case; remedies directed to the gastro-intestinal catarrh, with accompanying intermitting fever, effected the cure.

A case of stricture of the pylorus, in its course, at one time presented daily chills and fever. Quinia did not control the paroxysms. During the time of the fever, and for a week afterwards, the stools of the patient were composed of mucous or membranous casts of the intestinal canal or of a pultaceous mucoid discharge.

These cases incontestably prove the proposition that intermitting fever is often due to catarrhal inflammation of the intestines, and that remedies directed to this locality alone will cure the disease.

This clinical record will be closed by the report of an observation of a case, the nature of which is somewhat obscure. It is not given, therefore, without some misgiving. It appears that the only title that could be applied to it would be paroxysmal fever of neurotic or hysteroidal origin.

The patient was 25 years old, of a rheumatic diathesis and nervous temperament. She presented a history of "chills and fever," recurring at irregular intervals for two years. The paroxysms were of the quotidian type and the attacks lasted one or two weeks. Considered to be malarious; quinia or cinchona was always given by her attendant, and the usual remedies for malarial toxæmia used, without cutting short or preventing the attacks. The writer attended her through two attacks. They were of the following nature: Preceded by dyspeptic symptoms for a few days, a violent chill attended the onset of the attack, accompanied by severe headache, with tender spots and one or more localized points of pain in the body. In one of the attacks the pain with the first chill was fixed at the end of the spine with exquisite tenderness; in another it was in the epigastrium. The chill was an hour in length and followed by fever. With the fever the face would flush, the eyes "burn," and the skin be hot and dry. The temperature would rise to 103° or more, the pulse be full, bounding, rapid. Evidences of gastric catarrh with constipation were also noted. During the paroxysm the most pronounced emotional disturbances were manifest, so that had fever been absent it would have been without difficulty considered a case of hysteria. A sweating stage of two hours followed the fever.

The paroxysms recurred daily for a week, but with the repetition of each one the pain would be seated in another portion of the body—in the occiput, the shoulder or the knee-joints—while the emotional disturbances would be also present. The pain was described as unbearable, and could not be influenced by almost incredible doses of the usual anodynes. Quinia was given in enormous doses in the first attack, without any beneficial influence.

The fact that the paroxysms occurred toward night and that they were accompanied by hysterical symptoms of a high degree, the inutility of quinia and the absence of enlarged spleen rendered the opinion that the case was of neurotic origin, probably.

The second attack was very similar. Vomiting was, however, a more persistent symptom. The duration was about one week, and it appeared to yield to remedies addressed to the hysteria and the gastric irritability. The whole tenor of the patient's life has changed since then, so that for two years she has not had a return of the supposed malaria, notwithstanding she is exposed to the same malarious influences.

Time will not permit a review of the various affections in detail, in order to establish a differential diagnosis between these simulative disorders and a true intermittent. Any attempt at a positive diagnosis of paroxysmal fever, however, should not be made without keeping in mind the following proposition: In the first place, one would say that given a case with a chill and fever, a diagnosis of intermittent ought not be made from the nature of the first paroxysm, unless it be vital to do so, as in a pernicious intermittent. Then, if such a case is presented that yields but partially to antiperiodics, they should be discontinued and a fresh start in the diagnostic inquiry taken.

In order to fully establish a diagnosis a careful study of the antecedents of the patient should be made relative to previous health, habits, place of residence, and family history. Then, in favor of malarious intermittent, we should, after this study, expect a morning hour for the chill (Flint), the well-known changes in the composition of the urine, and if chronic, the enlarged spleen and the pigment granules in the blood. If with one or more of these favorable factors present we could exclude all possible source of organic disease, by an examination of each individual organ, the blood (leukæmia), the eye ground (tuberculosis), the lungs, liver and gastro-intestinal tract, we would be warranted in the diagnosis of marlarial intermittent.

It seems, further, to be of value to note that emaciation of a high degree is more common in non-malarious intermittents.

The same may be said of exhaustion. The latter occurs to a certain degree, and is attended with a pronounced anæmia, so easily recognized as of malarial origin. Then, too, a long sweating stage and a low febrile range rather disprove the presence of the malarious influence.

Enlargement of the spleen is not to be considered, in acute intermittent, as of little moment. In a series of twelve cases of intermittent in children, eight presented the enlargement, which had subsided a year after the first examination.

There is but little doubt that fever is of neurotic origin, and the examples which have been recorded to-night more aptly illustrate this cause than any other class of cases. The profession is so thoroughly imbued, however, with the idea of no fever, unless a zymosis or blood-poisoning, that it is of practical value to refer to the mechanism of fever briefly. As shown by others, disastrous results ofttimes ensue by addressing means to the cure of a zymosis, or by passively allowing a febrile process to continue its supposed self-limited course, when actually a zymosis was not present, and remedies otherwise applied would have been beneficial. The reference to the mechanism, therefore, is to show that often fever is of a reflex origin due to peripheral irritation—a neurosis.

The element of intermittency itself is a powerful argument in favor of its neurosal origin. This is not the time to engage in philosophical speculation, or to demonstrate the relation of the fundamental principle of the rhythm of motion so grandly elaborated by Spencer; suffice it to say that to no other set of tissues or systems could we look to but the nervous system for an explanation of intermittency. Aside from this, however, in the masterly study in morbid and normal physiology by Wood, on the mechanism of fever, we find sufficient argument and proof "that a depressing poison or a depressing peripheral irritation acting upon the nervous system which regulates the production and dissipation of animal heat," causes fever.

Among the illustrations presented to-night, there are some which strongly indicate the reflex origin of fever from peripheral irritation; witness the case of vesical calculus or of gall-stone. By what other supposition could the phenomena be explained? Likewise, though with an element of doubt intermingled, in the cases of gastro-intestinal catarrh, the fever may be considered as due to reflex processes. In the other cases the fever is, no doubt, due to the absorption of a poison which acts upon the nervous system, and as opposed to Charcot and Billroth, one would think that the phenomena of intermittency is due not to paroxysmal discharges of pus or poison into the blood, but to rhythmical responses of the nervous system to a constantly-acting poisoned blood.

Selections.

On the Contagiousness of Epidemic Cholera.

BY H. GIBBONS, SR., M. D.

Read before the San Francisco County Medical Society.

THAT epidemic cholera is communicated by an active contagion appears to be the almost universal sentiment of the present period. Having had more or less personal knowledge of all its visitations in our country since its advent in 1832, I have thought that some interest might attach to my observations in connection with its history. It is not my design to present any argument pro or con, only so far as facts constitute argument.

When cholera appeared in Quebec on its first invasion of America, in June, 1832, I resided in Wilmington, Delaware. As is well known, the disease almost immediately began its march southward, reaching the city of New York by the way of the Hudson River, in the latter part of June. Its steady approach, its great fatality and its remarkable features, tempted me to visit New York and prepare myself, as far as possible, to encounter its invasion. I went to that city about the 30th day of July, when the number of deaths by cholera was one hundred daily. The streets were thronged with people as usual and business was but little interrupted, very few persons having fled from the pestilence. No dread of contagion existed, though most people were afraid to eat crude vegetables and fruits. The history of the disease in Europe had established the fact that diarrhea almost invariably preceded an attack of cholera, and that if the diarrhea was arrested, which was easily done, no danger from cholera was to be apprehended. Further, it was an established fact that drunkards were particularly liable to the disease; in fact, that most of its victims were of that class who indulged freely in strong drink.

Besides Bellevue and some other established hospitals to which patients were admitted, four or five hospitals had been improvised for cholera patients exclusively. I spent several days in going the rounds of these hospitals and gathering all the information possible from examination of the patients and from the medical attendants. No fear of contagion existed. I was informed again and again that not one physician or nurse had contracted the disease. So far from suffering from apprehension on my own account, I never in my life spent a few days with an interest so deep and all-absorbing, as on this occasion, whilst contemplating and studying the marvelous plague. But all the knowledge I gathered in regard to treatment was negative. The experiences of Europe were repeated : that after the development of the characteristic symptoms, one-half, at least, of the cases proved fatal. When the stage of collapse was fully established, death was certain. All that human ingenuity could devise was futile. Inunction with mercurial ointment and capsicum ; internal medication with opium, brandy, ipacacuanha, calomel; salt water emetics; the injection of quarts of saline solutions in the veins; were tried in vain. Strange as it may seem, blood-letting gave more hope than any other treatment.

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My next acquaintance with cholera was in 1847, in Philadelphia, where I then resided. Again in 1849 it visited Philadelphia. On both occasions it put on the same features as in 1832, but at neither time did it prevail to any great extent. Most of the cases were isolated and solitary, though scattered broadcast over an extensive area. In 1849 there were many cases taken to the large city almshouse, at Blockley, where two and perhaps three of the resident physicians fell victims to it. It was understood that they had sought to protect themselves from it by smoking cigars and indulging more or less in intoxicating beverages. Both tobacco and alcohol have been generally recognized as tending to invite the disease instead of repelling it. One would infer this from the depressing influence of tobacco; and no fact was more universally acknowledged than the predisposing action of alcohol.

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I next encountered cholera in 1850, on my way to California. The steamship Ohio, on which I embarked from New York, reached Havana about the 8th of June. Cholera prevailed there at the time and the vessel anchored several hundred yards from the landing, the passengers not being allowed to go on shore. At the same time the Falcon arrived with passengers from New Orleans, and the passengers from the Ohio were transferred, with their effects, to the Falcon,' a small vessel, which now became excessively crowded. Here we remained for twenty-four hours, the ship's officers spending most of the time in the plague-stricken city. We then left for Chagres, the ship being in the filthiest condition, and so crowded that it was impossible to cleanse it. Many of the passengers were seasick, and the decks were almost covered with the discharges from their stomachs. If ever there existed a hot-bed for breeding pestilence it was here. A week was spent on the way to Chagres, but neither cholera nor any other epidemic appeared.

I arrived at Panama about the middle of June, and was forced to remain there over six weeks awaiting the steamship Republic, which was on her way "round the Horn," and to which I was ticketed. During this period there was a constant influx of passengers from New York, the vessels mostly touching at Havana. But not one case of cholera appeared. There was no restriction of travel, no quarantine, no dread of contagion, no cholera.

We left Panama for San Francisco early in August, four hundred passengers being crammed into the little Republic of four hundred tons burthen. Every berth, every bunk, every nook and corner, were occupied. The hygienic, condition of the ship was as bad as possible, but with the exception of a few cases of diarrhea no disease made its appearance.

Arriving at Acapulco in eight or nine days, and approaching the town after night, we were warned off to an anchorage a mile distant, on account of cholera, which prevailed in the town with great fatality. We remained at Acapulco between two and three days, getting a supply of coal. Meanwhile most of the passengers spent the day on shore, rambling about the town, and many of them indulging freely in eating and drinking. I had two brothers with me, Dr. Edward Gibbons and Rodmond Gibbons, since residents of Oakland. We called on the Alcalde, whom we found reposing in a hammock and in the act of firing a train of gunpowder, which he had laid on the plastered floor so as to surround him. The smoke from the explosion rose and for a moment concealed him from view, and no doubt he felt more secure from the plague in consequence. Whilst we were with him a messenger came to ask aid for two men, a father and son, said to have cholera. Understanding that my brother and myself were "medicos," the Alcalde requested us to visit them. We did so, and recognized two type cases of cholera in the stage of collapse. The doors throughout the town had pasted on them little pieces of paper containing a prayer within the outlines of a cross, and a note stating that the repeating of the prayer and the posting of it had been found useful elsewhere in arresting the plague. The prayer was an invocation to the Virgin, begging her, on account of the sufferings of her blessed Son on the cross, to intercede against the pestilence. We saw no indications of medical aid to the sick except these crosses, one of which was supplied to each of us by the Alcalde's daughter.

We re-embarked about the middle of August. If ever contagion had an opportunity to declare itself—if ever escape from it were next to impossible, here was the occasion. For two and a half days a throng of reckless passengers had inhaled the infected atmosphere, until, in modern parlance, their blood was filled with cholera microbes. Preventives were entirely wanting, and provocatives took their place, and yet not a single case of cholera or anything approaching it was developed among them. A few instances of diarrhea incidental to a tropical climate composed the sick list. There were other aggravating circumstances. The faulty condition of the ship rendered her progress painfully slow. Her boilers were so leaky that several cartloads of gravel were thrown into them at Acapulco. On the approach to San Francisco the provisions and coal which had formed her ballast were consumed, and for some days of the latter part of the voyage the vessel careened over so that one wheel was entirely out of the water, and it was difficult to cross the deck without grasping something with the hands.

We arrived at San Francisco on the 23d of August. At that date cholera prevailed in Sacramento, having reached there apparently with the current of immigration overland from the valley of the Mississippi, over which it had swept with great fatality. A few interior mining settlements in California suffered at the same time with Sacramento. There was daily intercourse from San Francisco with the latter place by steamboats, the distance being over one hundred miles. But no cholera existed in San Francisco until late in October, when a few straggling cases made their appearance. In the meantime Sacramento lost one thousand of her population of eight or ten thousand, whilst other thousands fled abroad.

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Early in the summer of 1853, a steamship arrived at San Francisco from Panama with about twelve cases of cholera on board. Some of the patients were taken in charge by their friends and removed to private houses; six or seven were taken to the City Hospital, then under the care of Dr. Wm. P. Gibbons and myself. They were hopeless, and indeed moribund, and all died within forty-eight hours. They were placed in a ward by themselves and nursed by the hospital attendants and the Sisters of Mercy. Neither in the hospital, which contained 150 patients, nor among the employes, did any disease ensue. Neither was there a single case of cholera reported from the cases which had been distributed in private charge.

The bedding from the infected ship was washed at a laundry, on the lagoon, a mile west of the city. Rumor had it that a number of the washermen were attacked with severe diarrhea. Though inclined to believe the statement, I can neither deny nor affirm it. It is certain, however, that no cholera was developed.

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In the summer of 1854 a personal friend of mine, living in San Francisco, a man of exeamplary habits, was seized with cholera and died with all the characteristic symptoms. He had not been away from home, nor was there known to exist another case of cholera within hundreds of miles. It was a most violent, rapid, and intractable case. Another case occurred under my charge in the following year, which presented the distinctive features of the disease and resisted all medication up to the period of incipient collapse, when relief was afforded by a hypodermic injection of half a grain of sulphate of morphia. A more satisfactory result from medical treatment never fell to my lot.

Such is a plain and true statement of my experience in regard to the contagiousness of epidemic cholera. Incompatible as the statements may appear with the doctrines now current, they are nevertheless facts, and I leave them at the disposal of the reader—*Pacific Medical and Surgical Journal.*

West London Medico-Chirurgical Society.

Friday, May 2, 1884, J. L. W. Thudichum, M. D., F. R. C. P., President, in the chair.

Radical Cure of Hernia.—Mr. Swinford Edwards showed three cases of this operation. The first case, a man aged

40, was admitted into the West London Hospital with a strangulated inguinal hernia. Taxis under ether failed. The sac was opened and the constriction at the neck divided in the usual way and the bowel returned. After ligature and removal of some prolapsed omentum, the sac was freed from the scrotum, and being pulled down as far as possible, a catgut ligature was tied round its neck and the sac itself cut off. The pillars of the ring were brought together with three silver sutures; the sutures were removed at the end of three weeks, when the patient was discharged cured. The patient was now, a year afterward, wearing no truss and doing his usual work. The second case, a lad aged 19, was operated upon for reducible inguinal hernia, at his own request. In this case the pillars of the ring were brought together by catgut instead of silver wire. The wound healed by first intention, and he was discharged cured one month after operation. In both these cases the temperature never rose above 100°. The third case, a little girl aged twelve, was operated upon in the same manner for reducible inguinal hernia. She was in hospital one month and the temperature did not exceed 99°. In these cases strict attention was paid to antiseptics, and Mr. Edwards laid great stress upon employing thorough drainage, iodoform next the wound, plenty of gauze packing and over all equable elastic pressure by means of an Esmarch's bandage. In femoral hernia Mr. Edwards only ligatured and cut off the sac, not meddling with the femoral ring or saphenous opening. Mr. Edwards, in reply to Mr. Lunn, said he would have the operation performed on himself if he had a hernia.

Dr. Thudichum said the operation did not vary from Wood's except in cutting off the sac.

Mr. Bruce Clark said Mr. Wood did not insist on suturing the pillars of the ring and also invaginated the scrotum.

Mr. Keetley said that the injection of irritating fluids into the canal had been practiced in America and Germany with success.

Littre's Hernia.—Mr. Keetley read some remarks on a case. The patient, a woman aged 40, was admitted into the West London Hospital with a right femoral hernia. Partial obstruction had existed for five days. There was vomiting, local pain and tenderness, but the bowels moved occasionally. The sac was opened and reduction easy. A portion of the intestinal wall, about the size of half a crown, being strangulated and of a very dark color, the sac was excised and its neck tied, with antiseptic precautions. The local symptoms were relieved by the operation, but delirium came on in twenty-four hours, and death ensued in thirty hours. At the post-mortem examination the strangulated portion was found quite black, and the blackness had also spread for an inch or two upward and downward. There was no peritonitis, and the affected portion of the intestine was narrowed.

Mr. Bruce Clark said excising the gangrenous portion of gut and reuniting by sutures was a treatment worth trying.

Dr. Thudichum said position was important in reducing hernia; for instance, putting the patient on his knees and elbows or even inverting him.

Messrs. Beckingsale, Edwards and Lawrence, Drs. Owles and Culver James took part in the discussion.

In reply, Mr. Keetley said the affected portion of the gut was ileum, that taxis had been employed, and that where he felt convinced the gut could not recover, he would excise as suggested by Mr. Bruce Clarke.

Extra-uterine Pregnancy.—Dr. Alderson attended the patient, aged 30, who was a healthy married woman with one child twelve years old, for the first time on August 4, 1880. She had previously been under medical treatment for a slight brown vaginal discharge, and a sound had been passed which occasioned much pain both at the time and afterward. When seen by Dr. Alderson she was suffering from severe uterine congestion and retroflexion. During the next three or four weeks there were sharp attacks of acute peritonitis, and on August 22d she passed *per vaginam* a large, tough membranous cast of the uterus and Fallopian tubes. No improvement ensuing, Dr. Wiltshire was called in and diagnosed a cataclysmic hæmatocele into the peritoneal cavity, probably due to the rupture of a tubal extra-uterine fœtation. On September 8th acute peritonitis set in. Opiates by the mouth, rectum, vagina and in fomentations gave great relief, and the patient continued to make progress until September 13th, when the temperature was normal and the pulse 100. At this time the external swelling was smaller and but little tender. The tumor could not be felt in the vagina, but *per rectum* there was a prominent firm obstruction about two inches up which nothing could pass. On September 20th she was taken to the West London Hospital, and the journey apparently caused the burst, ing of the fœtal abscess. A copious mattery discharge from the rectum ensued the same afternoon. After this the patient never suffered any acute pain, and the discharge continued for three weeks. On October 12th she passed through the rectum portions of fœtal bone, and the last piece of bone on May 24, 1882. The patient apparently recovered entirely, but the fœtal head could be felt as a hard globular swelling through the rectum. It was important to distinguish the early symptoms of extra-uterine fœtation. In this case he thought the earliest symptom was the chocolate-colored clotted discharge.

Mr. Gunton Alberton had seen three cases of extra-uterine fœtation, in two of which the bones were discharged through the rectum.

Dr. Venn said the diagnosis was arrived at by a process of elimination. He recommended abdominal section in cases where the cyst was discovered before rupture. The discharge of bones through the rectum, when it occurred, should be encouraged; and he advised no interference when they were encysted.

Mr. S. Edwards asked if there were statistics comparing those operated on with those left to nature.

Dr. Owles did not think it advisable to use the uterine sound where pregnancy might exist.

In reply, Dr. Alderson said the sound certainly caused the patient much pain and inflammation, though it apparently did not cause the death of the fœtus. With regard to fatality after operation, he had seen it recorded as high as 67 per cent. In twenty-four cases of primary operation by Parry only one survived.

The Cavendish Lecture.—Dr. Thudichum announced that an annual lecture would be given under the auspices of the Society, to be called "The Cavendish Lecture," in honor of the distinguished chemist who resided in the West of London, and who was an ancestor of the Duke of Devonshire, the President of the West London Hospital. He had much pleasure in announcing that Mr. Timothy Holmes would deliver the first lecture early in July.—*British Medical Journal.*

Water in the Dietary of Young Children.

In a communication to the *New York Medical Journal,* Dr. Remsen, of the Nursery and Child's Hospital, calls attention to the general ignorance which prevails as to the necessity of furnishing infants with a sufficient quantity of water, especially in hot weather, and whether they are brought up at the breast, or artifically For want of this, the fluid portion of any food introduced into the stomach is quickly taken up, leaving the solid too thick to be easily digested. They ferment and produce indigestion and colic, together with diarrhea. As a consequence of the thickened state of the blood thus produced, excretion of sweat is arrested, and a state of collapse and hyperpyrexia is developed. In warm, dry weather, babies will drink cool water every hour or oftener, if it is, as it should be, offered them. The earliest sign of the water in the system being below its normal standard is a slightly depressed condition of the anterior fontanelle. This may be present in children apparently in perfect health, yet in whom a slight increase of temperature or the deprivation of the breast for a few hours, may give rise to sudden hyperpyrexia. Attention is, however, usually first aroused by the fretfulness of the child, a moderate rise of temperature and pulse, a hot, dry skin, and a constant desire to suck. If a free supply of water be given, and nursing restricted in frequency, these symptoms will often disappear completely and quickly, but if not, collapse will soon come on. The temperature ranges from 105° to 106° F., or higher; the pulse is small and thready, numbering from 180 to 200; the skin of the body is painfully hot, while the extremities are cold; the features are pinched and sunken, with the eyes half-closed and the pupils contracted; the fontanelle is depressed, the hands are tightly shut, the respiration is hurried and irregular, and consciousness seems abolished. A child in this state will swallow water with greediness and the utmost pleasure. The treatment adopted at the Nursery has been wrapping the patient in a wet sheet, applying cold to the head, and giving as much water as can be swallowed. The results have been very satisfactory, the child becoming quiet, and even going to sleep, while all the threatening symptoms subside, The attention given to this point as a prophylactic measure has been followed by a diminished rate of morality, and a marked reduction in the number of gastric and intestinal complaints. If more care was taken to give children proper amount of water, and restricting their hours of sucking or feeding, the mortality due to hot weather would decrease, and less would be heard about the trouble of teething.—*Medical Times*.

The Use of Antiseptics in Puerperal Cases.

BY MADISON REECE, M.D., OF ABINGDON, ILL.

Read before the Military Tract Medical Association.

During one of the hottest days of the month of July, 1881, I was called to see Mrs. W., near London Mills, in consultation with Dr. Wilson, of that place. I found her in a small bedroom, only large enough for the bed upon which she was lying, with but one window in the room. She had been confined a week previously. Her pulse was 160, her temperature 106°, the tongue dry, abdomen distended to the size of a woman at full term, the secretion of milk suppressed. She was delirious, and an odor filled the room like that of a body far gone in putrefaction.

The husband was informed that there was no probability whatever for the recovery of his wife, every symptom indicating a speedy dissolution. However, I suggested a thorough washing out of the uterus with antiseptics. A half gallon of warm water with two drachms permanganate of potash was prepared. After being placed in a proper position across the bed, a gum catheter of the largest size, with several fenestræ in the lower end, was passed up into the uterus as far as it would go. A common Davidson syringe was attached to it by means of a piece of rubber tubing. The uterus was thoroughly washed out, the injection being continued until the water returning was perfectly free from all odor and clear in color. The discharge from the uterus was of such a peculiarly strong odor, that it was impossible to free the hands from it. It was like that one acquires in the dissection of bodies.

Such a change as took place in this woman's case within an hour, I never before saw in any case. Immediately after this cleansing process the delirium passed off, the temperature fell, the pulse came down—in short, the effect was simply magical. She was given twenty-grain doses of the sulphite of soda. The husband was taught how to administer the injections, which were to be given every three hours—one of a solution of permanganate of potash, the other of carbolized water, alternately. The patient made a speedy recovery from the severest attack of puerperal septicæmia I have ever seen.

Twelve years before this case, in September, 1869, I was called to see a woman who had had an abortion produced by mechanical means. She had a rapid pulse, high fever, hot skin, unquenchable thirst, irregular chills, an icteric countenance, and a sanious discharge from the uterus that smelled horribly.

A half dozen intra-uterine injections of carbolized water thoroughly administered, rescued her from impending death.

Ever since that time I have used this method in all such cases, with similar results with a few exceptions. They are to be regarded as similar to surgical fever, the result of decomposing *debris* in the uterus, which is absorbed from the uterine surface, and which Sir James Simpson has aptly compared to the flap of an amputated thigh, with its raw and bleeding surfaces, and patulous vessels ready to absorb decomposing fluids with which they may lie in contact.

The following long-continued case illustrates, in another way, the value of these intra-uterine injections. The last day of January, saw Mrs. M. A., aged 24, living near Hermon, a strong and vigorous woman· She had been confined 24 hours previously. The child was dead when delivered, and was so much decomposed that portions of the skin slipped from the body when handled. She had had a chill and profuse flooding a few hours before I saw her. The pulse was 140, the temperature 105°, skin hot, tongue dry, and abdomen dympanitic and distended to the size it was before her confinement.

The uterus was immediately washed out with carbolized water, giving great relief to the patient. The injections were kept up every three hours for a week, with the effect of reducing the temperature after every injection. Quinine was was also freely administered. Thinking, perhaps, that the septic matter was sufficiently removed from the uterus, the injections were discontinued. Within 24 hours a severe chill, followed by a high temperature, announced the absorption of more septic meterial. The intra-uterine injections were again resorted to, with the same results: diminishing of temperature, and lowering of the pulse. At the end of a week, as there seemed to be so much improvement, they were once more discontinued. Again, in a short time, there was a chill and return of former symptoms. Again we returned to the use of the intra-uterine injections, and kept them up until every vestige of fever had disappeared from the case for several days.

In this case there was no bad odor from the discharges, as in the former cases, and the effect of the injections in arresting the poison of the septic matter was prompt and striking.

Should antiseptics be used in every puerperal case? I believe so, especially as antisepsis has come to be considered as the use of every means of cleanliness, and the prevention of infectious or contagious matters. And just here let me record it as my fixed belief, that thousands of women have come to their deaths from the dirt and other matters under the finger-nails of their attendants. That dirt, the nest of infectious particles scraped from the body of himself, or possibly bathed in the infectious fluids of another person, is conveyed by means of the touch to the abraded surfaces in the puerperal patient, and she becomes inoculated with the virus that causes her death. I believe that any one suffering from a chronic skin disease, or who is afflicted with a chronic ulcer of any kind, should not attend upon puerperal patients, no more than he who is attending patients with scarlatina or erysipelas. In fact, it is my deliberate judgment, that puerperal women should not be attended by the general practitioner at all, and for one I will gladly welcome the day, when I can turn over all such patients to well-educated and thoroughly trained lady physicians who will make that their special calling.

Begging pardon for this digression, I would say in conclusion, that within twenty-four hours after confinement, the use of vaginal injections of carbolized water, affords the greatest comfort to the patient, bathing and soothing the neck of the uterus where there may be abrasions or lacerations, and cleansing and purifying the parts. If the discharges become foul in odor, and there is a marked rise in the temperature, then the injections should be *intra-uterine.* One precaution should be borne in mind, in prescribing vaginal injections, and that is to have the hole in the end of the pipe or syringe closed. I have in several cases seen a severe and dangerous uterine colic, caused by the injection passing into the uterus through the patulous and open os. In the rubber syringes that are sold for female use, I often prepare the pipe for such purposes by closing the central hole in the end, and enlarging the others in such a way that a backward current is given to the injection.

Fractured Fibula with Extensive Suppuration.

BY N. S. GIBERSON, M.D.

T. O., brakeman, had his right leg caught between the coupling of a locomotive and a six-inch pine scantling. The blow was heavy enough to splinter the timber. Upon attempting to rise he fell back with a sensation as if the entire leg had been drenched with scalding water. Rapid and enormous swelling supervened, and he was advised by his attendants to apply liniments, plasters, etc., to a " bad bruise," and also to go out on crutches as much as possible.

At the end of five weary weeks, he was admitted to the hospital in my charge, and when the dirt was sufficiently removed to make him feel human once more, the injured member was carefully inspected, with the following results: From the bend of the knee to the annular ligament the limb was engorged and edematous, and the cuticular surface, from a six-week's conflict with that unholy trinity, blisters, liniment, and "blue ointment," hung in shreds, with an occasional gangrenous spot as large as a dime. The tibia was intact, but the swelling was so great that the fibula could not be outlined. An obscure sense of fluctuation and a muffled crepitus a few inches below the fibular head excited our suspicions. In the bend of the knee, just between the hamstring tendons, was a dirty looking, shallow ulcer of the size of a half dollar. The limb was wrapped in spongio-piline saturated with hot water. In twenty-four hours the sense of fluctuation along the upper margin of the fibula had become patent. A puncture was made at its most prominent point, and the introduction of a trocar was followed by the exudation of a pint of grumous pus. After being well emptied of its contents the muscular walls of the abscess relaxed, and through the now flabby tissues it was easy to recognize a fracture of the fibula about three inches below its head. Crepitation was so distinct that the patient himself heard and took notice of it.

Carbolized injections (two per cent.) were ordered every four hours, and the limb was enveloped in a flannel bandage and sponged with alcohol and water twice daily. At the end of three days the old ulcer in the popliteal space stopped discharging, and the application of a poultice over night revealed the fact that a sinus connected the ulcer with the absces down in the heaviest part of the calf muscles. The antiseptic injection now came away freely at both orifices. All went well for a week under a generous diet and a liberal use of cod-liver oil and the muriated tincture of iron. The patient improved rapidly; when on a sudden he complained of a sense of distress on the inside of the leg, a few inches above the malleolus. An examination showed fluctuation, and the part was freely incised. About eight ounces of laudable pus exuded and it seemed to have penentrated every tissue of the leg, dissecting in every direction between the muscular layers. There were now three openings, all connected, and it was thought that in all conscience the drainage was complete. Another week passed and the injection issued clear from the lower and upper orifices. The first puncture was now allowed to close, and we were enjoying the prospect of a speedy attention to the fracture, when, to our dismay, another abscess formed, or the old one reformed, along the superior line of the fibula. A free incision was now made, four inches in length, along the fibular margin and the sac fairly laid open, A thorough injection of a solution of carbolic acid (one to twenty) was now employed, and the wound protected by the ointment of oxide of zinc. A large tent was inserted and the dressings were kept supported as before by a flannel bandage. This treatment proved the finishing touch. In ten days all discharge ceased, and the limb, was encased in the immovable dressing (silicate of potash), which was worn for three weeks without discomfort, and then discontinued.

This case is of interest to the advocates of brilliant, not to say perfunctory, diagnosis, as a shining example of "country practice," where a little care and conscientious application of well understood principles, would have saved this unfortunate man weeks of misery, and perhaps a permanent shock to his constitution.—*Pacific Medical and Surgical Journal.*

Cholera-Researches of Dr. Robert Koch.

Translated from the *Courier de Etats Unis.*

MARSEILLES, *July* 10.

AT a conference of physicians with Dr. Koch at the Pharo Hospital, a careful microscopical examination was made of the microbes which Dr. Koch brought from India.

He was asked whether he ever found the microbes in the blood. Never, was his answer. He demonstrated that the choleric microbes are half as large as the typhoid microbes, and have, besides, an oblong form. He found them in the most fulminating cases of cholera. In no other epidemic disease did he find the microbe so characteristic as in cholera. The microbe is not sporous. It is a scissiparitous product; it lives in an alkaline liquid; is destroyed by acidity, and still more by siccity. Three hours of siccity suffice to kill it in the dejections. Its channels of introduction are the mouth, the digestive organs and the intestines. If it is in the air, it is soon reduced to a powder, and enters the lungs, without harm. In the intestines it multiplies rapidly.

When asked by the President of the Sanitary Commission about prophylactics, he said, that the bacilli live in water, and the virulent germ propagates itself. It can be propagated by the washing of vegetables or other aliments. The first measure which should be rigorously prescribed is to use only cooked aliments, in which the microbe can not exist.

The treatment recommended by him in the beginning is opium, which must be discontinued as soon as the algide state is reached; stimulants may then become necessary, though he could indicate none. As soon as chilliness sets in, nothing can be done. He washes his hands in a solution of bichloride of mercury $\frac{1}{1,000}$, eats only well-cooked food, and drinks only boiled water.

Before leaving Toulon, Dr. Koch addressed the following communication to the Council of Hygiene:

Cholera propagates itself in assemblages of men; its principle is unexceptionally communicated by direct contact with men, or with their wearing apparel.

In cholera times, a well-regulated life must be led; experience has demonstrated that troubles of digestion favor an attack of cholera. Excesses in eating and drinking, the use of heavy, indigestible food, must be avoided, and also anything which may cause diarrhœa. A physician should be called in immediately. Never absorb anything which comes from a contaminated source; when in doubt whence it came, subject it to a thorough cooking, and especially so milk.

Water tainted by human detritus is forbidden; avoid the use of doubtful water, of water drawn from shallow wells or a swamp, a pond, or from a creek receiving vitiated water. Consider as essentially dangerous water which has been in any manner soiled by choleric dejection. Water which has been used for rinsing vessels or washing of clothing should not be poured into a well or into a running stream. It is impossible to get absolutely pure water; the simplest way is, therefore, to have it boiled.

These observations refer not only to water used for drinking, but to water used in the household; for the choleric germ, once existing in the water, can be communicated to all who make use of it, whether in the laundry, scullery, kitchen or bath. The most important consequences of these remarks are, that it is not sufficient to guard against cholera, to use pure, or even boiled water.

One case of cholera can become the focus of an epidemic; hence cholera patients should be removed from contact with all those not absolutely necessary to take care of them.

Public assemblages, fairs, fetes should be avoided. Never eat or drink in a room where the choleric are; their dejections should be collected in vessels containing a phenic solution.

All objects soiled by the dejections should be cleansed with dry cloths, which have to be burned immediately. Apartments which have been occupied by the choleric should remain vacant for six days.

Persons who are brought in contact with cholera patients should wash their hands with soap and phenic acid, or solution of bichloride of mercury $\frac{1}{1,000}$. Cadavers should be removed immediately, and the funerals should be simplicity itself. The cortege should not enter the mortuary house, and none of the objects belonging to the choleric should be removed without having been previously disinfected.

Laundresses should not receive the linen coming from a choleric, without having undergone thorough disinfection.

Therapeutic Notes.

PILE SUPPOSITORY.

℞.	Iodoform,	4 parts.
	Balsam peru,	
	Cocoa butter,	
	White wax,	āā6 parts.
	Calc. magnesia,	4 "

M. Divide into 12 suppositories. One after each stool.

IN GALLSTONES.

℞.	Boldo fl. ext.,	℥j.
	Syr. simp.,	℥iij.

M. S. Teaspoonful 4 times a day.—*Repert de Pharmacie.*

℞.	Acid benzoic,	ʒj.
	Irisin,	
	Euonymin,	āā ʒij.

M. In chart. No. 40. Divide. S. One in water night and morning.—*Larzalere.*

IN MENORRHAGIA.

℞.	Fl. ext. cannabis indicael,	ʒij.
	Fl. ext. hamamelidis virg.,	℥ij.
	Syr. aurant. cort., q.s. ad.,	℥iij.

M. S. A teaspoonful 4 times a day.—*Blackwood.*

WHOOPING COUGH (an excellent remedy).

℞.	Fl. ext. eucalyptus globulus,	℥j.
	Syr. lactucarium, q.s. ad.,	℥iv.

M. S. Teaspoonful every 3 or 4 hours to a child six years old, and less in proportion to infants.—*Blackwood.*

IRRITABLE OR NERVOUS BLADDER.

℞.	Ammonii chloridi,	ʒij.
	Ammonii bromidi,	ʒiv.
	Infus. gentian comp.,	℥vj.

M. S. A tablespoonful 3 times a day.—*Goodell.*

TETANUS.

℞.	Fl. ext. veratri. vir.,	fʒj.
	Fl. ext. gelsemii,	fʒiij.

M. S. Twenty drops every 3 hours.—*Harris.*

TAPE WORM.

℞.	Pulv. cort. radic. granat.,	℥ss.
	Pulv. secalis cornuti,	℥ss.
	Pulv. gum. acaciæ,	ʒij.
	Ol. filicis,	ʒj.
	Ol. crotonis,	gttj.
	Pulv. peponis,	℥j.
	Sodii salicylat..	gr. xv.
	Aquæ destillat.,	℥viij.

M. S. Take in the morning. Take a cup of coffee one hour before, and apply a sinapism over the epigastrium.—*Rowe.*

Ulcer of Stomach.

PARIS, *July* 4, 1884.

DR. DEBOVE has recently introduced a new treatment for simple ulcer of the stomach, based on the pathogeny and the anatomical lesions of this affection. Simple ulcer of the stomach was for a long time considered to be a tuberculous origin, then cancerous, typhic, and even dysenteric. Later on, it was attributed to inflammation of the mucous membrane of the stomach, which opinion was evidently more correct than the preceding. Finally, Rokitanski enunciated a theory which is now in vogue, as it better explains the nature of the disease, and thus leads to a more rational system of treatment. According to Rokitanski's theory, the ulcer in the stomach would originate in the disturbance of the circulatory system in a circumscribed portion of the mucous membrane of that organ, which would weaken its vitality to such a degree as to allow itself to be destroyed by the gastric juice. The form of the circulatory trouble would be a sanguineous stasis, or a hyperæmia, or a thrombosis, or an embolism. In other words, the process would be a simple digestion of the stomach by itself, or what may be termed local autophagia. Acting on these premises, Dr. Debove has adopted the following treatment in simple ulcer of the stomach. Having learned by experience that the introduction of large quantities of fluid, such as milk with or without lime water or Vichy water, which, up till now, constituted almost the only remedy in the treatment of this affection, was often attended by the inconvenience of producing dilatation of the stomach of a more or less permanent character, Dr. Debove thought the enormous quantity of milk (5 or 6 litres) which the patient was obliged to absorb daily, might be considerably reduced in substituting some kind of liquid food, rich in nitrogenous substances. Starting on this principle, the beau ideal of Dr. Debove, in order to obtain complete cure of simple ulcer of the stomach, would be to suppress for a time the secretion of the gastric juice, or rather to neutralize it by the action of alkaline substances, and thus render it inert. The following is his mode of procedure: During the first few days he washes out the stomach so as to remove from it the acid and mucous secretions it may contain. He considers this operation absolutely inoffensive, so long as it is performed with a soft sound, so as to avoid perforation in case of the end of the sound coming in contact with the ulcer. He then administers three times a day a mixture composed of 25 grammes of meat powder diluted in milk, to which is added 10 grammes of bicarbonate of soda. This is introduced each time through the sound, on account of its disagreeable taste. Dr. Debove has never observed any bad effects from the large quantity of the soda, 30 grammes (nearly an ounce) daily, or, if there be any intolerance, the dose may be reduced and combined with calcined magnesia.

One of the principal advantages of this mode of treatment is to avoid dilatation of the stomach so apt to be produced by the ingestion of large quantities of fluid, taking into consideration the altered condition of the parieties of the stomach. Moreover, it is difficult to get patients to submit to a milk diet exclusively, which they are to take in small and frequent doses, hence the utility of an aliment more substantial and less bulky, which at the same time should be of easy digestion. This treatment, according to Dr. Debove, should not prevent the employment of other remedies as are usually adopted in cases of hæmatemisis, such as ice, tincture of iodine, the perchloride of iron, etc.—*Jour. Med. Association.*

Gallic Acid in Hemorrhage from the Urinary Organs.

Of the styptics in ordinary use, gallic acid, according to my experience, is one of the most potent in relieving hemorrhage from the urinary organs. The reputation of this remedy would, I think, soon be greater than it is if those who try it would give it in sufficiently large doses, and persevere in its use for several days before replacing it by other astringents. As gallic acid probably acts according to the strength of its solution which bathes the bleeding tissue, it is necessary to insure the introduction of a certain quantity into the blood, by the frequent administration of successive doses. We must remember that gallic acid soon passes away from the blood, being carried off in the urine. It is, therefore, only by administering frequent doses that we can hope to compensate for this continual draining away of the remedy, and we must give it in quantity and often enough to more than compensate for what is removed with excrementitious matters.

In chronic bleeding from the surface of the mucous membrane of the pelvis of kidney, ureters, bladder and urethra, and from villous growths, as well as in the very obstinate hemorrhage from large fungus tumors of the kidney and bladder, I have found gallic acid most valuable in a large number of cases, and for some years past I have been led to depend upon it more and more. In that spongy condition of the prostate, when the veins are large and the capillaries of the surface considerably dilated and forming here and there little pouches like aneurismal dilatations, hemorrhage is not only very obstinate, but, from time to time, in such excessive quantity as to blanch and weaken the patient. The remedy should be given in frequent doses, day and night, until the bleeding is very decidedly reduced in degree, when it may be ordered once in six hours, or less frequently, being again increased in frequency, if the patient ceases to improve, or the hemorrhage again increases in severity.

Gallic acid seldom disagrees in any way. Some patients complain of its taste, but it is generally well borne by the stomach. It does not cause constipation, and even when the crystals are swallowed in a state of suspension, in water or mucilage, no inconvenience results, and the stomach is not disturbed by their presence. The glycerine of gallic acid is, however, the most pleasant form in which to prescribe the remedy. This contains one part of gallic acid in four. Forty minims will contain ten grains, and may be given in distilled water, peppermint, orange or other water. But it is most essential that the patient should persist in taking the doses regularly for several days. Gallic acid is absorbed by the blood, and passes away unchanged in the urine; and it is probable that it acts directly on the parts from which the bleeding is taking place, and therefore a certain strength of solution is necessary to get the good effects, and this can only be obtained by its persistent introduction into the stomach, and so into the blood, at short intervals of time. I have given gallic acid in ten-grain doses every three hours, without intermission, for three weeks—no objection having been made on the patient's part. Whether much larger doses would be absorbed I doubt, but I am not aware to what extent the remedy may be pushed, nor do I know in what respect very large doses would be deleterious. On these points I should be glad to learn the experience of other practitioners who have largely employed the remedy.

I have generally found that the desired effect has resulted after ten-grain doses had been kept up for three or four days, and in cases where the bleeding did not actually cease it was certainly well under control. In several of those painful cases of hemorrhage from fungus growth, the bleeding was much lessened, and the fatal result postponed ; In some of my cases I should say that death was due rather to exhaustion and weakening of the general health than to the hemorrhage. I therefore commend this remedy in the cases of hemorrhage to which I have referred, and I prescribe it with confidence, so that its use may be steadily continued until its beneficial action is clearly established.—*Lionel S. Beale, in the Lancet.*

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A Doctor Convicted of Manslaughter.

The *Med. Press and Circular* gives the account of a very sad case. As it is quite unusual, and we hope always will remain so, we give an abstract of it. Briefly the case was this : A competent medical man during his attendance upon a case of confinement, became drnnk. The case being one of cross-birth, and the doctor neither sending for assistance, nor delivering the woman himself, she died from rupture of the uterus. Being tried and convicted, he was sentenced to five months' imprisonment, with hard labor. The judge, in passing sentence, remarked : "It is a very sad case. I know perfectly well what an effect a verdict like that must have upon your professional prospects. It is a most painful thing, I know, for a man of your education to stand in that dock and receive sentence. I know perfectly well that the punishment I am about to inflict upon you, will probably entail great suffering to you during the time you have to endure it. If you had been careless, whether the woman lived or died, I should have passed a heavy sentence ; but I do not believe that was the case. I believe if you had kept your brains free from the influence of drink, in all probability this poor woman's life would have been saved, and she would have been delivered, as she had already been delivered of thirteen children, in safety and by your aid. But you gave way to drink. and in your inflamed condition, I have come to the conclusion you forgot what was due the case. You have already been in prison one month. I now order that you be imprisoned and kept at hard labor for five months."

It seems, farther, from the history, that the husband of the woman was present, and, during the visit of another practitioner who was called in, but refused to interfere. He did advise that further assistance be obtained. Why did not the husband see that such help was obtained, when he saw that the attendant was drunk? Further, why should the husband press upon a medical man alcohol, and keep pressing it until he became drunk, during an obstetrical attendance? It is in evidence that the husband did supply the doctor with the whisky which made him drunk.

Why then was he not an accomplice in the crime?

Still, a doctor should know better than to drink any alcohol before his engaging in any important professional work. In this regard, without any reference to the right or wrong of the matter, they should have the same sense as professional gamblers, who are said to be the most sober of men, in order that their heads may be so vigorous as to be able to beat all their rivals. Of course there are other and better reasons why medical men should never drink alcohol, except as they take strychnia or other medicines. But even on the lower grounds of simple expediency, they should always avoid it when on professional duty.—*Detroit Lancet.*

Hysterical or Nervous Breathing.

Published in the *British Med.* of July 5, 1884.

W. MARTIN COATES, F. R. C. S., ENGLAND.

To illustrate his idea he adduces four cases. The first was a patient who had been told by an eminent practitioner that the upper part of the left lung was affected. On examination, the author found nothing peculiar about the condition excepting very quick and almost imperceptible breathing. She could not be induced to take a long breath, which the author regards as a peculiarity of such cases; On being requested to count twenty without drawing breath, she did so, and then on inspiration the lung expanded freely, the air entering into every part. The second case was one to which the author was called in consultation. The patient was a young man suffering from severe disappointment associated with a severe cold and a slight cough. The peculiar feature which elicited the consultation was the irregular and shallow breathing. After necessitating the patient to count twenty rapidly, the practitioner requiring the consultation was convinced of the nervous nature of the difficulty. The third case was one where there was slight dullness on percussion under the clavicle. There were however, no rales, no bronchophony, or bronchial breathing, nor other physical signs of disease. There was the same rapid breathing which was manifest in the other cases, but the test of counting twenty rapidly cleared up the doubt which existed in the author's mind, as air then entered freely into every part of the lungs. On getting better she went to London and was counseled by her friends to enter a hospital, where, according to the patient's account, she was examined by the physicians and sent home to die of phthisis. On re-examining the patient, the author was himself convinced, and convinced the patient, she had no pulmonary disease. The fourth case refers to a simulated hypertrophy of the heart, and scarcely belongs to the same category, the detection of simulation being determined from the fact that the pulse did not correspond in its peculiarities with the action of the heart. In all of these cases except the fourth there was a cough. In generalizing on these cases the author thus expresses himself:

"I do not wish you to understand that these cases of nervous breathing are frequent. They are not. I see every now and then one. The slightest cases seem often to give rise to fear of phthisis, if there be cough. The fact of several medical practitioners being alarmed, shows that, unless you have the key, they are not easy to read. The characteristic features of most of these (I, of course, in this definition bar Case IV) are cough, with or without blood-spitting, usually of a venous charater, with very rapid and very shallow breathing, and absence, as a rule, of physical signs of disease. I say, as a rule, as in Case III there was, you will remember, slight dullness at the right apex for a short time. It is fair to infer that a similar dullness may have existed and passed away before I saw them; if so, it would add to the difficulty of diagnosis. It is possible that by this restrained and limited breathing, temporary congestion might be produced? When the patients cannot be induced to take a long inspiration, the making them count twenty without breathing enforces a long inspiration, re-establishes normal vesicular respiration, and gives the practitioner the test desired.

"I may here remark that the cough was not in either of these cases, the convulsive loud cough so usual in hysteria. The fact that several well-educated medical gentlemen had been led to fear incipient phthisis by this shallow, rapid breathing, accompanied by a cough of probably nervous character, is proof sufficient that it is very misleading, and and forms the best excuse for bringing the subject before this meeting."—*Weekly Med. Rev.*

Nitrite of Amyl.

BY CHAS. JAS. FOX, M. D., OF WILLIMANTIC, CONN.

PERMIT me to offer the following therapeutic observations on the *modus operandi* of the nitrite of amyl, which has proved itself to be in my experience a valuable agent in a certain class of affections which the general practitioner is very apt to be called upon to treat in his daily routine of professional duties. The highly valuable researches by various ivestigators have called the particular attention of the profession to its therapeutic value and fully demonstrated the true physiological action of the nitrite of amyl.

In angina pectoris I have seen almost specific power from the use of the drug. In most cases of true angina pectoris there is organic disease of the walls or of the valves or of the coronary vessels of the heart, and it seems highly probable that the pain in this affection is unquestionably due to these organic changes in the heart itself, than that it is a secondary result of a peripheral arterial contraction occuring without obvious exciting cause. My own explanation of the relationship between the pain of true angina pectoris and the arterial contraction is that the high arterial tension is a secondary reflex action and not the primary cause of the cardiac agony, and in addition to the centripetal nervous influence which which produces the pain, there is an influence reflected from the nervous centre through the vaso-motor nerves, and thus exciting a more or less general contraction of the arterioles. It is very probable that the peripheral arterial resistance, although not the primary or the main cause of the pain, yet adds to the distress and the danger of the paroxysm.

The manner in which the nitrite of amyl affords the desired relief which it often does is not without practical utility, more especially as a guide in the selection of cases which are suitable for the employmentt of the drug. I generally commence by giving an inhalation of three drops on a handkerchief to the nose and then to gradually increase *pro re nata* as soon as the face flushes or the heart becomes excited; then a short intermission between of several minutes should be observed, for during that time the effects always increase, even if no more be inhaled. The result of my first trial of three drops in a case was truly wonderful. The patient was in a very severe paroxysm, and as soon as the inhalation was tried it was aborted (so to speak) in about two minutes, whereas heretofore, under other remedies, the length of time was about twenty minutes; and after a time the frequency of the paroxysm was notably diminished, and under these improved circumstances finally ceased. The flushing of the face forbids the conclusion that the cause of the cardiac distress was due to a general contraction of the arterioles, and that the relief was due to relaxation of the arterioles.

I have also used it in connection with relieving neuralgic pains, which it does very rapidly.

A case a few weeks ago of severe facial neuralgia, which had resisted various remedies, came under my professional observation. I gave her five drops of the amyl on a handkerchief, and in a few minutes the pain was completely relieved. In a few hours it returned, although in a milder form, which was again effectually removed by the inhalation of the amyl, and, after several repetitions of the dose, the cure was complete. I have also used it in similar doses by inhalation with immediate result in asthma, in spasmodic dysmenorrhea, and also in epileptic paroxysms, where there is a marked epileptic stasis, and where the patient passes from one convulsion into another. In hysteria convulsions it acts to a charm; in fact, the drug itself seems to act with specific power in these classes of cases.—*New England Med. Monthly.*

The Treatment of the Navel in New-Born Infants.

The two dangers which are to be avoided in the treatment of the navel-string are: (1) hemorrhage from the stump; (2) of inflammation of the navel and its consequences. When the child begins to breathe, a complete change in the conditions of the circulation, of course, takes place. Within ten minutes after ligation of the navel-string the pulsation in the stump has ceased, as a rule. On account of the freedom from umbilical hemorrhage, which usually obtains in animals and in certain primitive races of men among whom ligation of the navel-string is not practiced, it has been proposed by some to do away with the custom of tying, as unnecessary, but this proposition has not been received with favor by the conservative element of the profession. Hemorrhage may occur hours or days after birth from causes which produce increased activity of the heart, or as the result of obstruction in the venous system. This accident is especially to be feared in the case of immature and asphyxiated children. The double ligature of the cord, that is, at both the fetal and the placental end, is advocated in all cases as the safer method, especially since one does not always foresee a possible twin pregnancy, and hemorrhage from an unligatured cord, in such a case, might be an unfortunate occurrence. The authors are not in favor of ligation immediately after birth, nor do they think it desirable to await complete cessation of pulsation of the umbilical artery. There is some danger in either procedure, and an interval of two or three minutes from the time of birth is thought to be sufficient to obviate that danger. The materials which are recommended for the ligature are carbolized silk or hempen cord, or some form of elastic ligature. Säuger recommends penetration of the cord with a needle, and winding a suitable ligature around it at both ends, but the authors do not think well of the plan. If elastic ligatures are chosen, either thin rubber bands may be used or small drainage-tubes. Greater security will be obtained by winding them two or three times around the cord before tying. By the eighth or tenth day, not only should the stump have been cast off, but also the navel should be entirly healed. As to the treatment of the cord after ligation, the less it is interfered with the better. Of course, the less moisture it receives the sooner it will mumify and drop off. The cotton or linen in which it is wrapped should be changed daily, cleanliness being an important feature of treatment. Säuger and Fehling recommended that a layer of salicylate of starch be sprinkled upon the bandage which is to be secured around the stump. Extensive antiseptic precautions in a matter of this character are thought to be unnecessary. In some cases they are, doubtless, harmful.—*Archiv f. Gynækologie, B. xviii., H.* I.

Hydrophobia.

In the *Medical Times and Gazette*, London, England, December 1, 1877, Edw. Wolfenden Collins, M. D., F. R. C. S, Ire., Surg. to Jervis Street Hospital, writes:

"For the treatment of hydrophobia it would appear that in curara we have a valuable therapeutic agent; and I desire to strengthen the hands of the editors of the *Lancet* and *Medical Times and Gazette*, in their recent able editorial comments on this subject. In these articles it has, I think, been too hastily assumed that no proof exists that any case of genuine hydrophobia has ever been cured, unless it be that recorded by Dr. Offenberg, of Wickrath, in 1874, to which allusion is made (*Medical Times and Gazette*, October 6, 1877). It is my object to show that this statement, which has so far escaped criticism, does not represent the sum of our therapeutic knowledge regarding the successful treatment of this disease. The other two recent cases which I shall bring under notice, are besides of much value, as they point exactly in the same direction as that of Dr. Offenberg, and taken together with it, warrant the hope that in similar cases, curara, when pushed rapidly to the manifestation of its peculiar physiological effects, may be found equally efficacious.

"In the *Amer. Journal of Medical Sciences*, July, 1876, page 81, Dr B. A. Watson, of Jersey City, minutely discusses and gives the fullest particulars of a case which he and Prof. Austin Flint regarded as an instance of true rabies canina. The symptoms of rabies developed themselves forty-seven days after the individual—a strong, healthy man, forty-five years of age—had been bitten in the finger by his own rabid dog. His servant-girl, who had been bitten at the same time and by the same animal, died five days before the commencement of her master's illness, of unmistakable hydrophobia. In this man's case there was a gradual increase in the severity of the symptoms till after the subcutaneous administration of curara in full and rapidly-augmenting doses ($\frac{1}{16}$ gr., $\frac{1}{9}$ gr., $\frac{1}{6}$ gr.) every third hour. The unfavorable symptoms forthwith subsided, and disappeared completely after the third injection.

"The second case was treated by Dr. Polli, and an abstract of it appeared in *Le Paris Med.*, May 17, 1877. A child, twelve years old, had been bitten by a rabid dog eighty days before the manifestations of the hydrophobic symptoms. Subcutaneous injections of morphia and chloroform inhalation having been tried without success, curara was injected subcutaneously on seven different occasions within the short space of five hours and a half. During this period twenty centigrammes (three grains) of curara were injected. The hydrophobic symptoms quickly subsided, being replaced by paralytic phenomena of a very pronounced character. Two days subsequently some renewed hydrophobic symptoms were completely banished by a fresh injection of three centigrammes (nearly half a grain) of curara. The child slowly recovered.

"In Dr. Offenberg's case (*Medical Times and Gazette*, October 6), where characteristic symptoms of rabies manifested themselves in a woman aged twenty-four, eighty days after she had been bitten by a rabid dog, the subcutaneous injection of one-third of a grain of curara at intervals of fifteen minutes at first, and subsequently at intervals of an hour, resulted in the cessation of the hydrophobic symptoms, and the supervention of general paralysis, rendering artifical respiration necssary. In this case, within the space of four hours and a half, seven injections were used, representing altogether nineteen centigrammes (nearly three grains) of curara. On the evening of the third day renewed hydrophobic symptoms, which had assumed a serious aspect, were promptly controlled by one other injection of curara.

"If it be conceded that these well-authenticated cases were instances of genuine hydrophobia (as their narrators with good reason maintain from a careful consideration of their history and all the symptoms), they are uniformly and highly suggestive as regards a method of treatment of this malady which hitherto has not received the attention it thus demands. More than ten years ago, Trousseau, when suggesting the possible advantage of the subcutaneous administration of curara in hydrophobia, was not deterred by the want of success which had attended its use in tetanus. 'Perhaps the want of success,' he remarks, 'may be largely due to the mode of administration of the drug' (*Clinique Medicale*, vol. ii, p. 380). This, it appears to me, is the point on which these three cases are so instructive. They demonstrate that, to be of service, curara must be employed in full and (probably best of all) in rapidly augmenting subcutaneous doses, varying from one-tenth to half a grain, at short intervals, until the paralytic symptoms, which experimental physiology has taught us to recognize as the manifestation of the full influence of the drug, begin to develop themselves. At this stage artificial respiration may even become necessary, as in Dr. Offenberg's case. The variation in strength of specimens of curara renders it important that the injection fluid should be procured from those who are likely to have exercised special care in the selection of the drug. A solution so concentrated (half a grain in five minims) as that prepared by Messrs Gale, of Bouverie Street (*Lancet*, Nov. 10), if reliable, seems to supply such a desideratum."—*Medical and Surgical Reporter.*

Microscopy.

MICROSCOPIC SLIDES FROM A CASE OF SPINDLE-CELLED SARCOMA OF THE BREAST.—Presented by Dr. G. de Schweinitz. I desire to exhibit a few sections, this evening, cut from a tumor of the breast removed by Doctor John Ashhurst, in the University Hospital. The history of the case, in brief, is as follows: Anna S., married, aged thirty-five, the mother of four children. Family history good. Her own health good until two years ago, when she began to to suffer from malaria. The tumor of the breast first began to be manifest one year ago, and grew gradually without much pain until the date of operation, when it had attained the size of an orange. There was no enlargment of the axillary gland. The nipple was not retracted. The growth to the touch, was hard, and in spots the skin had become adherent, giving rise "to the pitted, somewhat brawny or lardaceous appearance" which is described by surgical writers as rather indicative of scirrhus of the breast. This appearance was sufficiently marked to cause diagnosis of hard carcinoma to be suggested as probably correct. After removal, when the mass was laid open, both cut surfaces did not appear concave as is usually the case in a scirrhus. Microscopic examinations cleared up the diagnosis, for, as you will see by examining the specimens, they show the typical appearances of a small spindle-cell sarcoma. It seemed a good case to illustrate the difficulties sometimes encountered in correctly diagnosticating tumors of the breast, and for this reason I have briefly placed it upon record.

Gleanings.

THE USEFULNESS OF TREATING VICIOUS UNION OF FRACTURES.—Dr. J. B. Roberts, in an address on "Surgical Delusions," (*Polyclinic*) says: "It is a fact not sufficiently appreciated, that many cases of deformity from imperfectly-treated fractures of long bones, can be remedied by refracture. Over and over again have I seen cases of grave disability and deformity cured by the application of sufficient force to break the callus uniting the misplaced fragments. Five or six months is not too late to resort to this expedient for correcting what otherwise must be a life-long evidence of defective surgical attendance.

"There are many other prevalent surgical delusions, such as that bony union of transverse fractures of the patella, and of intracapsular fractures of the femoral bone cannot take place; that chronic purulent discharges from the ear do not need active treatment; that hypermetropia and hypermetropic astigmatism can be properly estimated and corrected without paralyzing the accommodation; that it is improper to perforate the nasal septum in cases of great deviation; that crooked noses are not amenable to treatment; that corneal operations and cataract extractions should be treated by cotton padding and bandages to the eyes; that fractures should be treated with carved or manufactured splints.

"While an earnest advocate of conservative and of reparative surgery, I believe that, when operative surgery is demanded, it should be aggressive. Delay, indecision and inefficiency impair the value of much surgical work, and are often the legitimate result of a superstitious faith in delusive surgical dogmas."

A FOREIGN BODY IN THE BLADDER.—The following is clipped from the *British Medical Journal*, January 26, 1884;

"On January 9, 1884, I received a message to see Mrs. C., aged 64, the wife of a tradesman, and a very fairly-intelligent woman. She was the mother of a large family, the eldest being more than thirty years of age. She was seen the same evening by Dr. McConnell, who is associated with me in my practice. She presented to him all the usual symptoms of calculus. The following day she was seen by us together, when, with the sound, we clearly detected a foreign body in the bladder. We proceeded to dilate the urethra; and, in passing the finger through the urethra into the bladder, we detected a substance of a metallic nature. This we were able to extract by means of a long, narrow pair of forceps passed by the side of the finger. It proved to be a hairpin of the ordinary size. This operation was followed by little or no incontinence of urine.

"The chief interest in the case was how the hairpin got into the bladder, and the length of time it had in all probability been there. She appeared to have not the slightest knowledge as to how this entered her bladder, but she tells us that she has been conscious of the presence of something there since before the birth of her first child, more than thirty years ago".—*Philadelphia Medical and Surgical Reporter.*

[One of our exchanges says the editor of the *Southern Medical Journal* would suggest that she was trying to fix up her waterfall, and her foot slipped.—*Ed.*]

CAUSE OF CONJUNCTIVITIS IN THE NEW-BORN.—Authors have been divided regarding the causes of inflammation of the eyes in the new-born. Some contended that only the specific virus of gonorrhœa could produce the conjunctivitis, while others insisted that under certain conditions the common discharge of the vagina during the passage of the child may induce the eye-disease. A solution of nitrate of silver, four grains to the ounce, one drop passed three times daily into the inflamed eye, has always been considered a very efficient remedy, especially if early applied, *i. e.*, before irreparable damage has been done by the inflammation. Ice-water compresses greatly accelerate the cure.

Since the germ-theory has found so many adherents, and considering the infectious nature of the conjunctivitis, mild solutions of corrosive sublimate ($\frac{1}{1000}$) have also been used, and with such a remarkable success as to prove almost beyond a doubt the zymotic nature of the eye complaint.

A German physician, P. Zweifel, has recently instituted a series of experiments with a view of determining definitely the mooted question. Z. introduced into the eyes of six children, perfectly normal, lochial secretion, which he had procured from healthy mothers, of whom there was definite proof that neither they nor their husbands had ever suffered from gonorrhœa. The result was very satisfactory, not the least inflammation of the eyes ensuing. Though the number of the experiments is rather a small one, Z. draws the conclusions that the specific virus of gonorrhœ is essential for the production of ophthalmia neonatorum.

The editor of the *Centrlbt. f. d. Med. Wiss.*, May 21, 1884. p. 368, while reporting the observations of Zweifel, remarks that the experiments should be repeated, and that in every case of genuine ophthalmia neontarum the presence of gonococci should be inquired into; for as well known, these micrococci have been met with in the discharge of the specific urethral disease.—*Med. and Surgical Reporter.*

Infant Feeding.—In an article with the above title (*Archives of Pediatrics*, July 15th, 1884), Dr. H. R. Bigelow, of Washington, D. C., discusses the subject of infant digestion and assimilation at some length, and presents some interesting facts in support of an artificially prepared food which commends it to favorable mention. Dr. Bigelow discusses the physiological and chemical necessities of the young infant, and points out the demands of infant digestion for a food, for those infants deprived of the mother's breast, which contains the main constituents of human milk in closest relation to its physiological composition. He assumes correctly that woman's milk is the best food for the infant, and that a food which can satisfactorily approximate this great food of nature, is the only true substitute for it. After comparing the relative composition of human and cow's milk, and showing the want of harmony between the two, Dr. Bigelow concludes that cow's milk can not ever be safely substituted for human milk, until it has been transformed by some chemical process which science has not yet developed. Looking around for an artificial food which makes the nearest approach to that designed by nature for the requirements of the child, Dr. Bigelow is induced to use Mellin's food, which according to chemical analysis seems to be a close imitation of mother's milk. In this remedy he has implicit confidence, which was strengthened and built up by a series of cases in which the remedy was most successfully used. Dr. Bigelow concludes his paper with a report of cases of marasmus and entero-colitis which were cured by the use of this food.

Tenotomy of the Tensor Tympani.—When the writer was in Vienna eighteen months ago, having heard Weber-Liel speak in extravagant terms about the advantages to be derived from the tenotomy of the tensor tympani, he sought the opinion of Gruber on the same subject. With a significant look of want of confidence, he suggested the leaving of the section of the tensor tympani to others. We find, however from the *Annales des Maladies de l' Oreille, du Larynx*, etc., that Gruber is now performing the same operation. He claims that it is indicated in cases of permanent contracture of the muscle, and claims that the success is almost certain when the inflation of air gives temporary relief. Dr. Weber-Liel claims that this operation will put an end to attacks of vertigo associated with affections of the ear, and acting on his suggestion, Gruber operated on a case of fourteen years' standing, which had passed through various practitioners' hands. The patient, a woman, aged twenty-six, had suffered from impairment of hearing for fourteen years; associated with this difficulty was a frequent noise in the ears accompanied with a severe headache. All these symptoms were worse in damp weather. For several months past there was added to the above troubles violent attacks of vertigo, the patient fearing she is about to fall down forward. Section of the tensor tympani was affected and the noises ceased, the hearing improved; the vertigo was at first worse, but it improved gradually, and was at length--the time is not given--completely relieved.--*The Analectic.*

Bromidia and Morphia in Delirum Tremens.—Dr. J. F. Goldmam, Huntsville, Ala., writes:

Case 1.—Mr. W. R. W., aged thirty-five, a healthy, strong man, had been drinking hard for a number of days, resulting in delirium tremens. I put him on a sol. morph. and tr. valerian, one ounce each, tr. verat vir. (Norwood's) one drachm; teaspoonful every hour till sleep. I then went to bed, and to sleep, confidently expecting my patient would do likewise. But in this I was doomed to disappointment. Messenger came early in the morning with the information that my patient had been wild all night and slept none. I then prescribed bromidia two ounces; sulph. morph. two grains; teaspoonful every hour till sleep. The result was most happy. My patient fell into a sound sleep of some twelve hours' duration, from which he awakened, and went at once to his place of business, a well man.

Case 2.—J. S., aged forty, strong, muscular and vigorous. Found him treading the border-land of horrors, with every symptom of delirium tremens. I put him at once on the bromidia and morph. treatment, with the same result as in Case 1—sound sleep and perfect recovery. Since treating the above cases, I have relied implicitly on the bromidia and morphia, and have never been disappointed.—*Medical Chronicle.*

VARICOCELE—INTERVENOUS INJECTIONS OF ALCOHOL.—Kranzfeld describes (*Vrach. Vedom.*, No. 540, 1882) a simple and easy method of treating varicocele, which had been successfully practiced in seven patients by Dr. G. C. Dukhnovsky, of the Odessa Military Hospital. The method consists in injections of eighty-five to ninety per cent. alcohol into the subcutaneous cellular tissue surrounding the spermatic veins. The needle of a Pravaz's syringe is introduced under the skin at any point facing the dilated veins, and is brought, with the help of the operator's left hand, as nearly as possible to the diseased vessels; then the syringe is slowly emptied. The injection causes only moderate burning pain, lasting from half an hour to three hours. On the next day after the operation there appears a considerable, but almost painless, swelling of the parts, which is at first soft, then becomes more tense. The injections are repeated at three or four days' intervals, from three to ten times, according to the demands of the case. Finally, the spermatic veins are transformed into thin, hard cords. In all the seven patients of Dr. Dukhnovsky cure was complete (at least the patients remain quite well as yet). The same method proved equally efficacious in two cases of dilated veins of the leg.—*London Medical Record.*

MENSTRUATON AFTER OVARIOTOMY.—In reference to menstruation after extirpation of the ovaries, the following professional opinions have been lately given: Dr. Campbell, of Georgia, does not deny the influence of habit, periodical plethora, the ovaries and the Fallopian tubes, but he thinks there is a certain endowment of the nervous system. Dr. Goodell puts it that there is an irritation of the nervous bulb. Dr. Emmet had a case in which both ovaries were removed, together with the Fallopian tubes, and yet there had been a regular menstruation thirteen times. Dr. Thomas said, as a rule, if the ovaries are removed, menstruation is the exception. If it occurred it was due to metrostaxis. The only benefit of Tait's operation, over Battey's, was that all the ovarian tissue was likely to be removed. Dr. Byford believes that in many cases some of the ovarian tissue was apt to be left; that it is difficult to remove all said tissue.—*Amer. Jour. Obst.*

LISTERINE.—Dr. C. W. Spalding has this to say of Listterine, in *Archives of Dentistry*:

"We have felt the want of a safe and not disagreeble substance that is both antiseptic and disinfectant. Carbolic acid is a powerful germicide, and is therefore anticeptic; but it is not a disinfectant, nor does the much-used creosote possess this valuable property. As a coagulator of albumen, carbolic acid is all that can be desired; its anæsthetic property is also sometimes serviceable, and both it and creosote have qualities that will ensure their retention in dental materia medica.

"But what the dentist most needs in this line is a prompt, effective safe, non-irritant and agreeable disinfectant. If to these qualities there is added that of a non-toxic and reliable antiseptic, such as we have in Listerine, so much the better; there is little more to wish for in one preparation.

"Our experience with Listerine has been short, but it has already become an indispensable article upon our table, and has banished several substances that formerly held place there. We commend it for trial, in the belief that as a deodorizing and antiseptic combination it has no superior." —*Southern Dental Journal.*

DILATATION FOR FISSURE OF THE ANUS.—The method is discussed at some length in the *Revue de Therap.* for February, 1884. Gradual dilation is not recommended by the authors, but forced and rapid dilatation is said to give excellent results. The index finger may be used for the purpose, but the thumbs are generally too short. Molliere, Verneuil, Trelut and others make use of expanding specula of various forms. An enema must be given on the day before the operation, and the administration of an anasthetic is generally advisable. The dilatation is known to have been sufficient when two fingers can be introduced together into the rectum without feeling of resistance. The patient can resume his occupation after two days. Incontinence of fæces does not occur after rapid dilatation.

FERRY-BOAT AMENITIES. — A Chinaman came into the ladies' cabin on the ferry-boat and took a seat beside an Irish market woman. He seemed to want to make himself agreeable, and rubbing his hands, remarked: "Belly cold." The woman looked at him with an air of contempt, and replied: "If you'd put your shurrt inside your pants, your belly wouldn't be cowld, you haythen blaggard."—*Exchange.*

THE "setting of gypsum" is the result of two distinct phenomena. On the one hand, portions of anhydrous calcium sulphate, when moistened with water, dissolve as they are hydrated, forming a supersaturated solution. Again, this same solution deposits crystals of the hydrated sulphate, gradually augment in bulk, and unite together.—*Scientific American.*

Clear as mud.

Book Notices.

THE NATIONAL DISPENSATORY.—Containing the Natural History, Chemistry, Pharmacy, Actions and Uses of Medicines. Including those Recognized in the Pharmacopeias of the United States, Great Britain and Germany, with Numerous References to the French Codex. By Alfred Stille, M. D., LL.D., Professor-Emeritus of the Theory and Practice of Medicine and of Clinical Medicine in the University of Pennsylvania, and John M. Maisch, PHAR. D., Professor of Materia Medica and Botany in the Philadelphia College of Pharmacy. Third Edition. Thoroughly Revised, with Numerous Additions. With Three Hundred and Eleven Illustrations. Large 8vo. Pp. 1,755. 1884. Philadelphia: Henry C. Lea's Son & Co. Cincinnati: Alfred Warren. Price, $8.00.

This magnificent Dispensatory, just published, is received by us just as we are ready to go to press with the last form of the present issue of the MEDICAL NEWS.

This work may be truly termed a magnificent one for the learning, research, experience and vast information contained in it. It represents not merely the investigations, observations and deductions of its two authors; but the medical literature not only of this country but also of Europe—journals and books—have been searched through, examined and gleaned, and whatever of knowledge of value found has had a place given it. As regards remedial agents, the means employed by the physician to cure and alleviate disease, the forces at the command of the medical man to meet abnormal conditions, this great work can, in truth, be said to contain all that is known up to the present time. This may seem to be a broad assertion, but we believe an examination of the work will confirm it. We have never yet failed to find noticed in it an established claim of the properties of a remedy, whatever the remedy may be, or whatever may have been the channel through which it may have been established—an obscure work or humble medical journal.

The first edition of this work was published in 1879; and now having reached a third edition, shows that it has met with great favor by the profession. A work embodying so much learning, forming so great a treasury of practical knowledge, would certainly meet with the highest appreciation.

The present edition exhibits the pharmacopeias of the four chief civilized nations, viz.: the United States, England, Germany and France. Numerous historical notes have been added. Descriptions have been extended or condensed as occasion seemed to require; and as microscopy is attracting increased attention, microscopical structure has been more fully described and illustrated. A large portion of the work has consequently been rewritten. The extent of the modifications and additions may be estimated from the fact that the General Index of this edition contains over thirty-seven hundred more references than that of the second edition. Many wood-cuts have been replaced by new and more satisfactory ones, and the whole number has been increased by about eighty.

This edition will be found to contain the most recent views of the physiological action—so far as it explains the curative effects—of medicines; but all generalizations have been sedulously kept subordinate to the practical character of the work. The fruits of recent clinical experience have proved to be very large, and have required for their presentation an additional space, equivalent to about 80 pages. Their number and variety may be inferred from the fact that the Index of Therapeutics contains nearly 1,600 new references. In this edition has been introduced the new feature of an Index of Authorities.

The doses of medicines are expressed both in terms of the decimal system and in those of apothecaries' weight. Following the usage of German and French authorities, the doses of liquid medicines, according to the metrical system, are stated in terms of weight, and not of measure.

The work forms a vast treasury of knowledge made up of contributions from the life-work of hundreds of laborious workers.

An Introduction to Pathology and Morbid Anatomy.—

By T. Henry Green, M. D., Lond., F. R. C. P., Lond. Physician to Charing Cross Hospital, etc. Fifth American, from the Sixth Revised and Enlarged English Edition. With 150 Engravings. 8vo. Pp. 480. Philadelphia: Henry C. Lea's Son & Co. Cincinnati: R. Clarke & Co.

No work upon Pathology and Morbid Anatomy is more popular in the profession than that of Dr. Green. This is attested by the fact that it has passed through six editions in England, and has reached a fifth in this country.

The work, while not prolix, is sufficiently full in detail to give the student a very correct knowledge of the various subjects treated. The language is correct and easily understood, and the style is pleasing. It is a very readable work. The physician or student, on taking it up, soon becomes interested in its teachings, and reads on in consequence of the interest that is awakened in the information set forth. We predict an undiminished popularity for the work.

The author, in order to give a correct idea of Pathology and Morbid Anatomy, first defines some other branches of medicines, and, from the definition of these, deduces what constitutes them. As a matter of interest we will make a quotation from the Introduction: "*Anatomy and Histology* investigate the naked eye and microscopic structure of the healthy body; physiology examines the functions of the parts and elements revealed by them, and studies the chemical processes which constitute healthy life. To obtain a knowledge of disease, parallel courses must be adopted. In post-mortem examinations we note all naked-eye departures from normal anatomy; next, the microscope is employed to show the finer changes to which these departures are due; and, lastly, we endeavor to find out the causes of the abnormal structure and function which constituted the disease, their mode of action, and the nature and sequence of the disturbances which they produce. We thus get pathological anatomy and histology and pathology—the physiology of disease."

Mr. Stanley Boyd has assisted the author in the preparation of this edition. We learn by the preface that that gentleman contributed the introductory chapter, and the chapters on "Tumors," "Regeneration," on "Septicemia and Pyemia," and on "Vegetable Parasites."

DISEASES OF THE THROAT AND NOSE, INCLUDING THE PHARYNX, LARYNX, TRACHEA, ESOPHAGUS, NOSE AND NASO-PHARYNX.—By Morell Mackenzie, M. D., London, Consulting Physician to the Hospital for Diseases of the Throat, Lecturer on Diseases of the Throat at the London Hospital Medical College, etc. In two volumes.
Volume II.—Diseases of the Esophagus, Nose and Naso-Pharynx, with Index of Authors and Formulæ for Topical Remedies. Illustrated. 8vo. Pp. 550. Philadelphia: P. Blakiston, Son & Co. Cincinnati: R. Clarke & Co. Price, cloth, $3.00.

The publication of this the second volume completes this exhaustive work of Dr. Mackenzie. We notice in the advertisement, that after this volume had been printed off, and the sheets were waiting to be bound, a disastrous fire consumed the premises of the printers, and destroyed the printed sheets. Luckily the author had in his possession proof-sheets of the volume, from which the work could be set up in type again. As it was, the volume was greatly delayed in appearing, which, of course, was a great inconvenience, but that was as nothing to the great calamity which would have resulted if no proof-sheets had been in existence after the destruction by the fire.

Dr. Mackenzie stands pre-eminently the greatest specialist of diseases of the throat at the present time, and this fact makes his work especially valuable. It sets forth his researches, observation and experience; and a work, certainly, that explains the views and methods of treatment of the most eminent and successful practitioner in a particular class of diseases, must certainly be a very desirable one. The name of Dr. Morell Mackenzie, although almost exclusively a scientific man, is very nearly as familiar in England as the names of Gladstone and Spurgeon. Every intelligent man, woman and child has heard of him. His popularity, however, has not been obtained, in any way, by means of catering to the public, but by bringing to bear his scientific skill acquired by research, observation and experience in relieving sufferers of diseases of the air passages of their ailments.

The London *Medical Times and Gazette* in speaking of the work says: "The work is the outcome of Dr. Mackenzie's unrivaled experience of the affections of which he treats, and it exhibits in every part the extensive research, clearness of description, close observation, completeness, with conciseness of practical detail and fullness of experience, that Dr. Morell Mackenzie has accustomed us to expect in his writings."

The *Deutsches Archiv. fur Klinische Medicin.* speaks as follows in regard to the work: "We are pleased to say that the expectations we had formed of this book have not merely been realized in the fullest manner, but far exceeded."

MATERIA MEDICA AND THERAPEUTICS: AN INTRODUCTION TO THE RATIONAL TREATMENT OF DISEASE.—By J. Mitchell Bruce, M. A. Aberd., M. D., Lond., F. R. C. P., Physician and Lecturer on Materia Medica and Therapeutics, Charing Cross Hospital, etc. 12mo. Pp. 547. Philadelphia: Henry C. Lea's Son & Co. Cincinnati: Alfred Warren.

This little work belongs to the series of "Manuals for Students of Medicine," which we have announced a number of times that the house of Messrs. Lea's Son & Co. is preparing. The works belonging to the series are designed more particularly for medical students who are in attendance upon lectures. Small, so as to be easily carried, they can be kept conveniently at hand for reference. The work before us is most compactly printed in nonpareil type, and contains as much reading matter as many large octavo volumes in long primer or pica type.

The work is chiefly therapeutical in its scope, and is intended to be a rational guide to the student and practitioner of medicine in the treatment of disease. At the same time the Materia Medica has not been sacrificed. It will be found to be set forth in detail by the adoption of a *natural* and concise arrangement, which presents the subjects in such a form that it can be quickly appreciated and easily remembered.

As one of the very latest works upon Materia Medica and Therapeutics, replete with information abreast of the times, we unhesitatingly recommend it as one of the very best for either medical student or practitioner of medicine.

We have before announced that the "Manuals for Students" are to consist of a series of fifteen volumes, of which, besides the work we have just noticed, there have been issued the following volumes: Klein's Elements of Histology, Pepper's Surgical Pathology, Treve's Surgical

Applied Anatomy, Ralfe's Clinical Chemistry, Power's Human Physiology, Clarke and Lockwood's Bisector's Manual.

LAID OVER.—Just as we are closing this issue of the MEDICAL NEWS, we have received a few new publications, the notices of which are laid over to next month.

Editorial.

NOTICE TO SUBSCRIBERS.—We have been sending bills to subscribers who are delinquent, in some cases for a number of years; and we intend to send still more of them. We desire to say to those who are not able to remit immediately that they should, at least, acknowledge the receipt of our bills. On inclosing a bill to a subscriber, who had not been heard from for a couple of years or more, and we receive no reply, we become uncertain whether or not he may have removed, or *may have died*. Under the circumstances our clerk feels under the necessity of writing to the postmaster for information, or setting on foot inquiries in some other direction. But if such subscribers would write us, this trouble to us and annoyance to them would be saved.

Much trouble would be saved all around if subscribers would remit without waiting for a bill. In such cases we will promptly return a receipt. If, from any cause, a remittance is not acknowledged in due time, we wish the party sending would advise us of the fact by postal. Receipts should always be carefully filed away, for they are positive evidence of payment, and their production, in any case of doubt, settles the matter. While publishers can not but admit that, with the vast numbers of persons they have to keep accounts with, it is possible for them, now and then, not to enter a credit made, they would prefer to be convinced of an oversight by being shown a receipt than by a statement of the recollection of a subscriber, for it is well-known that the memory is often treacherous.

CRIMINALS—INSANITY.—There is, at this time, in the jail of Hamilton County, in Cincinnati, the unprecedented number of some six or seven persons under sentence of death for the commission of murder in the first degree. Only a few weeks since a man was hanged for the murder of his wife. Under the circumstances the question arises whether the crime of murder has lately greatly increased, or has it suddenly happened that the opportunities of escaping conviction have become diminished? We think an affirmative reply may be made in both instances. There can be no doubt that crime, in the way of committing acts of violence, has fearfully increased in Cincinnati in the last year or two; and, it is well known, that since the mob and burning of the Court House, a few months ago, a conviction is quite sure to follow upon an indictment. Previous to the mob, the criminal lawyer luxuriated in possessing control. Paid a large fee, he could insure any criminal, whatever the crime, immunity from punishment. Murderers walked the streets under bail, feeling sure that they would never be brought to trial. But what a change in the last few months! No murderer is now to be seen upon the streets. We have one in our mind, who having been at liberty for two years without trial, soon after the mob, had the keys turned upon him, and within a short time has been convicted of murder in the second degree — the penalty being imprisonment for life in the penitentiary.

But revulsions have a tendency to extremes. There is danger, sometimes, that a just indignation awakened in consequence of the corruption which permitted notorious crimes to go unpunished, may become so blinded by excess, as to regard every one guilty who is charged with crime, with but little regard to evidence. Now, that all the men who are under sentence of death in Hamilton County jail committed the acts with which they are charged—that is, that they took the lives of the persons that they are charged with taking—there can be no doubt. But if to commit murder, and to be worthy of death, requires that a man should be of sound mind, competent to fully appreciate the enormity of the offense—to understand that it is a murder he has committed—we fear that there is one poor fellow of the number under sentence of death who can not properly be regarded as a murderer. We refer to a man by the name of Patrick Hartnett, who recently killed his wife. We have not the space, at this time, to enter into a discussion of this man's case, or even to give particulars at length of his alleged crime, He had been a drunkard—according to his history—and his mental malady was probably due to the excessive use of alcoholic liquors; but when he killed his wife he was not laboring under delirium tremens. Organic lesion of the brain had been brought about gradually by drink or other causes, as shown by his wife having considered him insane for a long time before her death by his hands, and endeavoring to have him sent to the lunatic asylum. At the time he committed the terrible act he was in the room in which his family lived with his wife and little children. He compelled his wife to kneel upon the floor as many as a couple of times and kiss it. Then after the performance of a number of superstitious mummeries he struck her the fatal blow with an ax. He then cut a hole through the floor of the room and stuck his wife's head through it and a portion of her body. During this time his children were present and witnessed the acts— two of them, a girl and boy, ranging in age from twelve to fourteen years, we believe.

After placing his wife's body in the position mentioned, he lighted some "holy candles," as described by the children, and placed them upon the floor near the body, calling upon Mary, Joseph and Jesus. While thus performing various incantations and mummeries, one of the children succeeded in escaping from its dangerous position and raising an alarm.

The man, when the police came upon the scene, made no effort to escape, and, at no time, has expressed any contrition so far as we have learned. We understand that he charged his wife at times with adultery, but had no cause for jealousy, as all of her neighbors regarded her as above reproach.

We would not pronounce this man insane from the facts alone that we have mentioned. As we have stated, our space is too limited, at this time, to give all the facts in detail, or to enter into a discussion of the case in which we could explain all our reasons for considering the man *non-compos mentis*. From what we have learned it is impossible for us to consider Hartnett of sound mind, and if his attorneys had pleaded insanity at his trial, we have not the slightest doubt but that it could have been easily established by competent testimony. But they strangely made no plea of unsoundness of mind, leaving it to the jury to find a cause for his terrible conduct in insanity, if they were disposed to do so, or not. But at this time of prejudice against every one charged with crime, it could not be expected that a jury would, of itself, seek for reasons to relieve one tried before them of responsibility.

MR. ROWLAND AND THE LANCET AND CLINIC.—Mr. Rowland, Health Officer of Cincinnati, and the *Lancet and Clinic* have been passing some mild strictures recently upon each other in the *Commercial Gazette.* It seems the *Lancet and Clinic* does not admire the present Board of Health of Cincinnati, because all of its members, except one, who is a street contractor, are saloon-keepers, and it does not think such men should be regarded as qualified to look after the health of Cincinnati, when "*gaunt cholera*" is threatening it. It objects also to Mr. Rowland as Health Officer, because, not being a physician, he is not acquainted with the nomenclature of disease and is ignorant of materia medica. Mr. Rowland replies to the strictures of the *Lancet and Clinic* by stating that he did not seek the office he is filling, and only accepted it when it had been pressed upon him by the Board of Health, after the Board had in vain tried to get one or another of several physicians to take it. He says he discharges the duties of his position to the best of his ability, and challenges comparison of his administration with that of any of the physicians of the past. He expresses surprise that while the *Lancet and Clinic* lauds so highly the conduct of the office under Drs. Clendenin, Quinn and Minor, it is entirely silent in regard to the abilities displayed by Drs. Kearney, Miles and Bramble. It must think that these parties fell short of mediocrity.

As we are not involved in the *unpleasantness* that has taken place between our friend, the *Lancet and Clinic*, and Health Officer Rowland, it does not devolve upon us to decide as to the merits of the controversy on either side. We will only say that the Board of Health is on a par with the body that created it. It would be unreasonable to expect it to be morally and intellectually materially different. And what constitutes the City Council that made the Board of Health? Certain men chosen by the citizens to create such a Board and do other work. Forsooth, then, our sanitary rulers were made such by the citizens. Not until conditions lead to a change in the City Council can there be expected to be any change in the moral and intellectual character of the Board of Health.

As regards Mr. Rowland himself, it is only fair to say that, notwithstanding the majority of the members of the Board of Health are saloon-keepers, he himself has been known to be, for many years, an ultra-temperance man, an active advocate of teetotalism with regard to the use of liquors of all kinds; that he is a gentlemen of high standing in the community, well-trained in the ways of business, highly intelligent and possessed of superior executive abilities. Of course, we believe, all other conditions the same, that a physician would be better qualified for Health Officer than any other person; but in case of not selecting a physician, we know of no one so well qualified as Mr. Rowland.

Cholera in France.—At the time we write the latest information is that the cholera is spreading in France, and that there is quite a panic in agricultural districts and in the country towns. The disease seems to have greatly diminished in Marseilles and Toulon, where it first began, and the residents who fled are rapidly returning to their homes. But while there are fewer cases in some quarters, the disease is spreading over a greater extent of territory, and its virulence is said to be greater—the number of recoveries of those attacked being less.

Cablegrams report cholera prevailing in many towns in the northern or northwestern part of Italy. We have also understood that it is prevailing, to a considerable extent, in Corsica, being there of quite a virulent character. There is considerable mention in the papers of a disease of a choleraic character, prevailing in England; but we understand that it has but little of the character of Asiatic cholera. When genuine cholera reaches England and begins to prevail to a considerable extent, we think it will not be long before it will reach this country. We have not, however, the slightest notion that we will have cholera in this country before next summer.

It becomes physicians of this country to observe closely the progress of cholera at this time in Europe, and learn all that they possibly can about this wonderfully mysterious disease that stalks through the nations of the world, striking down the inhabitants everywhere. The efforts of physicians in contending with it will have to be, in the main, limited to preventing it, in destroying its course, when it has set out on its march; for, when prevailing in a virulent character, to cure, we believe to be impossible, for the reason that life receives, when it is virulent, a fatal blow from it right at the start, a blow that is as irremediable as a crushing blow upon the head by a sledge-hammer, or from an excessive dose of a fatal poison. It is known that there are certain physiological poisons (in contradistinction to *morbid* poisons which produce specific diseases), which may be administered in such doses that, at their first action, the vital powers become fatally disintegrated, and, under such circumstances, life can not be saved by the administration of an antidote or by any treatment. In a mild form, no doubt, Asiatic cholera is as amenable to treatment as any other disease, but when of a virulent character, we do not believe that any remedy will ever be found for it, for with the first symptom, under such circumstances, the vital powers are fatally injured. In fact, we have met with some cases, in which death itself might be said to be the only symptom. We met with a case one time, during an epidemic, in which a person, apparently in good health, leaped from his bed in the morning, but had not much more than alighted upon his feet, when, doubling over, with his hands pressed upon his abdomen, he gave a shriek, as if suffering from intense agony, and died upon the spot.

Whatever glory the medical profession will realize in its contest with cholera, will not be obtained in curing persons attacked by the disease, but by stamping the disease out, after definitely learning the causes and removing them.

CAUSES OF DISEASE.—Dr. James Cuming, Professor in Queen's College, and President-elect of the *British Medical Association*, in an address before that organization, speaking upon the progress of Medical Science, said that at present attention was concentrated on the study of minute organisms as causes of disease. "The identification of the special parasites, the study of their mode of invading the body, of the places of their development, of their effects in respect to nutrition, function, and tissue change, present subjects for investigation of surpassing interest and engage the attention of numerous observers. Evidence is rapidly accumulating which leaves little room to doubt that micro-organisms are the active agents in the production of epidemic and endemic diseases. A flood of light has been thrown on some of the obscurest points of pathology, the reproduction and increase of contagious elements, the immunity acquired by passing through a disease against a recurrence of the same malady, and on the question of the incubation and latency of contagious diseases. Nothing can be of greater interest than the observations on the attenuation of virus, opening out unexpected possibilities of mitigating the severity of some of these scourges of the human race, and making the hope of the ultimate extirpation of several of them not altogether a fantastic one. In the main we have to look to foreign observers for our instruction in these subjects, for in these countries the researches necessary to elucidate such problems are trammeled by legislative interference and markedly discouraged by popular sentiment. In recent years it had become one of the commonplaces of general addresses on medicine that disease was to be regarded as simply a perverted life-process, and that there was an essential identity between physiological and pathological processes. We used to congratulate ourselves on the strides we had made in advance from the notions of the earlier physicians, who regarded disease as an intrusive foreign element at war with the vital principle. Boerhaave is credited with being the first to formulate the great principle, '*Morbusest vita præter naturam.*' And undoubtedly this conception did lead to clearer notions of many of the phenomena of chronic disease. But what is the outcome of the most recent researches on bacterial action? It is that when bacteria enter a tissue, they come into conflict with the proper tissue-elements, abstract the nourishment contained in the juices to the deriment or exclusion of the normal cells, and give rise to different chemical changes which disturb the normal metabolism of the healthy parts.

"But there is another vast field of inquiry which forms the necessary complement of the study of the parasite. We know that there must be a certain receptivity in the system, some diminution in its wonted powers of resistance, or some original proclivity—something which we are in the habit of terming predisposition—which renders the body liable to the attacks of the parasite and furnishes an appropriate soil for its growth. This predisposition may either be a general one, expressed by a proclivity in some countries, or in certain races, or in particular temperaments, or it may have been acquired by the individual either at a certain period of life, or under the influence of a variety of causes, in his diet, occupation, or surroundings."

Death of Dr. J. J. Woodward.—It is with much pain, indeed, that we chronicle the decease of the eminently distinguished physician, microscopist and scientist, Dr. Joseph Janvier Woodward, which occurred August 18th, at Dr. Livingston's Asylum for the Insane, near Wawa, on the Westchester and Philadelphia Railroad, Pa.

Dr. Woodward was born in Philadelphia in 1832. He was educated principally at the Philadelphia Central High School. He graduated as A. B. in 1850, and received the degree of A. M. in 1855, being the Valedictorian of his class. After receiving the first mentioned degree he began the study of medicine, and graduated from the University of Pennsylvania in the spring of 1853. For a short time thereafter, he practiced medicine in Philadephia, acting, during the period, as teacher and examiner upon microscopical and pathological anatomy. We presume that it was at this time, although we have not been informed, that he devised a microscope manufactured by Queen & Co. which bore his name. We have seen the cut of it in the old catalogues of Queen & Co. It was before the present era of good objectives at a low rate, and when not one physician scarcely in a thousand or more had a microscope. First-class lenses at that time, which did not equal in quality those of second-class at the present time, ranged in price, for the various powers, from $75 to $150 each, and consequently those who had microscopes, except wealthy professional microscopists, used the French commercial triplet objectives to their microscopes, which a microscopist of to-day would not have as a gift. Of course, the Woodward microscope was furnished with a French triplet, and sold, we believe, for about $75 or $80. The stand inclined at any angle, which was not the case with all microscopes at that time, and had a number of other features which were then new and regarded as improvements. A number of years ago, when we were in Dr. Woodward's company, he jestingly referred to the microscope that was known by his name, and stated that while the makers had made and sold very many of them, making a great deal of money, he himself had not realized a cent. At the breaking out of the late civil war he entered the regular army as Assistant Surgeon, and, in consequence of his extensive scientific acquirements, he was assigned to duty in the Surgeon General's office at Washington. He was made a full Surgeon in the army some years ago, but he held his position as Assistant Surgeon for many years, in consequence of its enabling him to remain at Washington in a department in which he had the greatest facilities for pursuing scientific investigations. His rank in the army, we believe, was Colonel.

Dr. W. had charge of the *Army Medical Museum* at Washington—the building containing it having been the theatre in which President Lincoln was shot by Booth. Here he had his laboratory rooms in which he instituted his researches. He was, by far, the most distinguished microscopist of this country, if not of the world. His skill in manipulation, and in devising apparatus for the purpose of obtaining the highest performance of objectives, was beyond all precedent. It seems somewhat remarkable that Mr. Robert Tolles, of Boston, of world-wide reputation as a maker of microscopes and microscopic lenses, who made objectives whose performance was never surpassed, and only equaled by a very few makers in the world, and who made numbers of objectives by order of the Government for Dr. Woodward, died only a few months ago of pulmonary consumption in Massachusetts Hospital. We remember of Mr. Tolles, only a few years ago, making for Dr. W. a tenth of great angle of aperture, that, at the time, surpassed in resolving power any lens that had ever been constructed. But, of course, in these times of rapid progress, it stood alone for only a short time. Our information in regard to this remarkable piece of scientific mechanism we obtained from Dr. Woodward himself, when stopping for a few days in Cincinnati.

Dr. Woodward was the first microscopist of the world who resolved the nineteenth band of Nobert's Test-Plate. After resolving the lines with an immersion sixteenth made by Powell and Lealand, of London, he succeeded in photographing them. We have a number of times, in the Medical News, explained this Test-Plate of Nobert for the benefit of our non-microscopical readers, and the most of them consequently will be able to appreciate this feat. We will only observe now, that Nobert, who made the lines, had never seen them until after they had been resolved by Dr. W., and previous to that time they were not known to have an existence except theoretically. But when the Doctor sent a photograph of them to the *Royal Microscopical Society of Great Britain*, there could no longer be any doubt about it. We have many specimens of Dr. Woodward's micro-photographs, kindly sent to us by himself, which, in consequence of their great beauty and the great manipulative skill which they exhibit, we value most highly.

Among the micro-photographs which Dr. Woodward kindly sent us, and which we still possess, are the following: First, Amphipleura Pellucida, photographed to ten inches in length, by Tolles' $\frac{1}{25}$ immersion, exhibiting the striæ so prominently resolved that they can be seen easily across a room. Second, Amphipleura Pellucida, nine inches in length, resolved by a Tolles' $\frac{1}{12}$ immersion with a five-inch amplifier; a very beautiful specimen, the striæ very prominent and counted with ease. The enlargement is 2,250 diameters. Third, Amphipleura Pellucida, by Tolles' $\frac{1}{25}$ immersion; very beautiful; resolution perfect from end to end, as in case of the others; enlargement 2,050 diameters. Fourth, Amphipleura Pellucida; exhibits two frustules, the striæ on both perfectly resolved; Powell and Lealand's $\frac{1}{16}$ immersion. A note to this, in Dr. Woodward's writing, states that it is the third photograph since the original was made, and that in the lower of the two frustules the striæ are 95 to $\frac{1}{1,000}$ of an inch. Enlargement 1,583 diameters. Fifth, Amphipleura Pellucida, by P. & L's. $\frac{1}{16}$ immersion; enlargement 960 diameters. A magnifying glass exhibits striæ beautifully. Sixth, Amphipleura Pellucida, same objective, same magnification and same result. Seventh, exhibits Surirella Gemma immensely magnified by Powell & Lealand's im. $\frac{1}{16}$; 3,100 diameters; frustule at greatest width measuring 3⅞ inches; longitudinal striæ resolved into large beads. Eighth, Grammatophora Marina; taken by *Electric Light;* P. & L's. im. $\frac{1}{16}$; magnified 2,500 diameters; striæ resolved into beads. Ninth. This is a card having on it five photographs taken by P. & L's. im. $\frac{1}{16}$. Two are frustules of Grammatophora Marina, magnified 1,100 diameters, and three are frustules of of Grammatophora Subtilissima of the same magnitude, except one of 1,300 diameters.

We have photographs of other diatoms which Dr. W. kindly presented us, but we only mention the above in consequence of their perfection, and great skill manifest in their production. When we received the Gram. Mar. photographed by the electric light, we had scarcely ever heard of it. It was some time before the electric light was used at all for general illuminating purposes. We are confident that no one had before employed it for the purpose of photographing.

We have numerous histological micro-photographs executed by Dr. W. To enumerate them all would take too much space. We have one before us exhibiting in a most beautiful manner the striated muscular fibers of a mouse—500 diameters. Another specimen is a small artery and capillaries showing the epithelium, from urinary bladder of frog; another, white corpuscles shewing amœboid movements in the external coat of a small vein. But of the score or more of specimens we can not mention any others.

Exceedingly polite, kind, generous and willing to communicate of his great knowledge, it always afforded the greatest pleasure to seek him at the Army Medical Museum, and spend all the time with him that one's own time, and a due consideration for his, would permit. We have thus had the pleasure to meet him at his invitation, and were highly entertained and instructed.

Among Dr. Woodward's published papers may be mentioned an "Address on Medical Staff, U. S. A.;" "Remarks on Croup and Dyphtheria;" "Typho-Malarial Fever: Is it a Special Type of Fever?" "Remarks on Photographic Micrometry;" "Application of Photograph to Micrometry, with Special Reference to the Micrometry of Blood in Criminal Cases;" Report on "Medical Literature;" Report on "Causes and Pathology of Pyemia" (Septicemia). The "Medical and Surgical History of the War of the Rebellion," composed of several large volumes, and published by order of Congress, was largely his work in conjunction with Surgeon Otis. We are happy to say that he contributed a number of original articles to the Medical News.

In 1875, Dr. W. was elected Second Vice-President of the American Medical Association. In 1882, he was elected the President, but on account of ill-health, he was traveling in Europe at the time the Association met at St. Paul, Minn., and was, in consequence, unable to preside over its meetings.

Dr. Woodward's malady was undoubtedly caused by overtaxing his brain. Not until his health had materially failed did he seek relaxation by traveling in Europe, but returned without having received any benefit. At the time President Garfield was shot, he had just recovered from the effects of an accident while riding on Pennsylvania Avenue, Washington, by which one of his legs was broken, and he was hardly able to get around. The care and attention bestowed by him upon the President's case, in his weakened condition, seriously impaired his health, but after the President's death he resumed his confining and exhausting labors at the Medical Museum. He was, as we have intimated, a persistent student; and after leaving his office in the evening, would carry his labors far into the night in his study at home.

If some one who is familiar with Dr. Woodward's researches, especially his microscopical investigations, would present the profession and scientists a detailed account of them, we feel sure he would receive the grateful thanks of very many. Dr. W. made many investigations, the results of which were never recorded, and it would be a misfortune that they should be lost. We remember of his making some investigations in regard to monochromatic light, with reference to its employment in aiding in the resolution of the striæ on diatoms, inventing a glass cell to be placed under the stage of the microscope, containing a blue liquid which would render the light, reflected from the mirror, passing through it to illuminate the object, monochromatic. There are hundreds of observations made by him, every one of them of more or less importance, which have never been chronicled in a permanent manner, that will, in a short time, be forgotten about if they are not recorded.

He was a man who commanded the admiration and love of all who knew him.

DECEASE OF ERASMUS WILSON.—This distinguished Dermatologist and Anatomist, of England, has recently died. Unfortunately we can not place our hand upon the memorandum of the date of his decease. His work upon Skin Diseases is upon the shelves of nearly every physician of this country. His work upon Anatomy was the text-book upon that subject in all the medical colleges of this country thirty years ago; its place, however, being finally taken by another work upon Anatomy. But we regard it superior only as regards the cuts. It is stated that Mr. Wilson had become very wealthy before his decease. He paid most of the expense of the transportation of Cleopatra's Needle from Egypt to England. He also expended large sums in efforts to improve the condition of the English masses.

RETURNING LEPERS TO CHINA.—The authorities of the city of San Francisco, Cal., have sent back to China nineteen Chinese lepers, paying their passage and giving each one five dollars. The *Medical Record* remarks, in regard to this action, that "nineteen cases have been lost to science." It may be true that some curious scientific men may feel disappointed, but undoubtedly many lives have been saved and much terrible suffering from a frightfully loathsome disease. It will be better for the physicians of this country to learn how to cure consumption and cancer, before desiring to combat with another incurable, infectious disease.

VACCINATING TO PREVENT HYDROPHOBIA.—Our readers are aware of the claim that M. Pasteur has made to prevent hydrophobia by vaccinating persons with a fluid containing the animalculi, which are the cause of hydrophobia, after the process of *planting* the animalculi has been gone through with a number of times. The French Government recently appointed a commission to examine the claim of Pasteur and report as to its validity. They have just reported that their investigations decisively confirm the correctness of the distinguished scientist's theory.

REMOVAL.—Mr. Alfred Warren, the very popular bookseller of Cincinnati, has removed his store from Central Avenue, near Sixth Street, to 278 W. Sixth Street, a few doors west of Central Avenue.

Mr. W. has now one of the finest storerooms in the city, and well adapted to his increasing trade. It extends the whole length from Sixth Street to George Street, and can be entered as well from the latter street as from the former. By the aid of a large skylight in the center, the room, from front to rear, is beautifully lighted. As now situated, there is no larger and finer bookstore in Cincinnati than Mr. Warren has.

Mr. W. keeps a large supply of medical works. New works are added to his shelves so soon as issued by the publishers. Medical students will always find all the latest text-books, which are sold at lower rates than they can be had elsewhere. Stationery of every description, at moderate prices is constantly in stock, as well as works of literature, history, science, etc.

THE
CINCINNATI MEDICAL NEWS.

VOL. XVII. No. 201. Old Series. | SEPTEMBER, 1884. | VOL. XIII. No. 9. New Series.

Original Contributions.

The Contagiousness of Typhoid Fever.

BY E. A. COBLEIGH, M. D., ATHENS, TENN.

I NOTICE in recent medical periodicals considerable discussion of this subject, especially in the light of all recent observations of actual facts, which bear strongly as proof for or against the theory of contagion. Having myself witnessed the inception and spread of a limited typhoid outbreak during the present season, the course of which seems to conclusively bear evidence to the deadly contagiousness of this malady, I report the details for the benefit of those who are collating testimony in the matter. I can not give exact dates, as no notes were kept during the rush of a busy practice, but will give the leading features of the outbreak, with sufficient detail to answer the purpose of my article.

During the month of May, a young man of this vicinity returned home from a neighboring city, rather indisposed. He was aged about 28 years, deformed from early childhood by anterior spinal curvature to moderate degree—the hunchback condition being attributed to an injury received, when quite young, from a fall—but the curvature not materially increasing for many years. This young man, whom we will call J. C., had been engaged for only a few weeks in business in the city aforesaid, and about ten days or two weeks before his return home, he had assisted in "laying out" a man who was said to have died of typhoid fever. He went to his mother's home, a couple of miles in the country, and a doctor was called, who stated that he feared J. C. was coming down with typhoid. A couple of days later, as the first physician was professionally absent, another was called to permanently supersede him, and the new man pronounced the case one of septicemia from absorption of detritus from spinal caries—the last stage of Pott's Disease. Under his treatment, the case went on for about five weeks, with a fatal prognosis from the first.

About three weeks after J. C. came home, I was called to Mrs. P. B., a young lady of 23 years, in same house. My patient was anemic and debilitated from prolonged lactation. Her first child was a niece of J. C., and had been nursing him much of the time during his illness. Her case rapidly developed into an open, well-marked, but mild typhoid fever. J. C. now was very low and unconscious. The two cases moved along for three weeks side by side—mine mild, mostly rational, but profoundly debilitated; the other comatose and condemned. Once I saw J. C. at the urgent request of family, but only as bearing on my own case and not for treatment or criticism. That he had a pure typhoid, I was firmly convinced, but this I did not say. Thinking him dying for eighteen hours at one time, all remedies were discontinued, when he unexpectedly opened his eyes and rationally called for something to eat. From this point forward, for thirteen weeks, he hung between life and death, alternately conscious and comatose, and then rallied under the care of his first physician (who had been recalled), and recovered.

Meantime Mrs. B., who had been slowly but steadily improving for several days, imprudently sat up for a few moments in her very weak state, then lay down, turned on her side, complained of nausea, gasped and was instantly dead of cardiac paralysis. This occurred at the beginning of the fourth week of her illness. The details of these two cases I give rather in full because of their interesting points, as well as their bearing on the history of the outbreak. The others I shall merely mention in brief. About a week after Mrs. B. died, a younger sister of hers, K. B., living in the same house, came down of the disease and had a mild and brief attack, out of which, however, she came very markedly emaciated. A younger brother of J. C., residing in Iowa, and an older brother whose home was about one and a half miles from the infected house on another road, went to him soon after he fell ill, and were in or about his room most all of the time. The older brother had a very delicate wife and child, both of whom visited J. C. during his confinement, and these two suffered, I am told, from attacks of the same fever. Two other children of this family escaped, these two being stout and healthy.

The husband of Mrs. P. B. did much nursing of the sick parties, but he had experienced a severe and prolonged typhoid in another State a few years previously, and escaped this time. The younger brother of J. C., from Iowa, came down soon after K. B., and had a long, tedious attack. The older brother escaped. Whether he was protected by a previous occurrence, I am not aware. An older sister, the mother of Mrs. J. B. and K. B., also escaped. This lady was well along in years. Another one of these girls, and in age between the two previously mentioncd—also residing in the infected house, came down last of all, but had a very light attack.

Another, and younger sister of J. C., residing two and a half or three miles distant, came with her husband to nurse the sick, and stayed much in this house. The husband was an old and experienced nurse in typhoid, and escaped. His wife, suckling an infant, fell ill after returning home, and was seriously sick for some time. The nearest neighbor of this family, a mile farther out on the same road, next had a half grown boy attacked, probably from contagion by intercourse between the two houses, and lastly an invalid brother-in-law of this lad, residing in town, had an attack. No epidemic of typhoid was prevailing in our section at the time these cases occurred, and indeed this fever is rare here—only appearing at rather long intervals. Seven miles southwest of our town, a few imported cases were reported in a neighboring village. With the exception of these, I do not know of any other cases having been heard of in the country, and surely it seems to me that the history of those given shows a pretty good indication of gradual spread by direct contagion. Some years ago a similar outbreak occurred in the town itself, about a dozen cases all told—the first, a young lady just home from boarding-school in Pennsylvania, fatal; the others confined to about three houses, and all directly traceable to apparent infection by personal intercourse with the sick.

Translations from Our Foreign Exchanges.

Translated for MEDICAL NEWS, from the French of Prof. Saffey, by Dr. Illowy, Cincinnati, Ohio.

OBSERVATIONS ON A DECAPITATED ANAMITE.

PROF. LABORDE made some researches upon the head of the guillotined murderer, Campi. Owing, however, to the lapse of time intervening between the decapitation and the beginning of the experiments, an hour and a half, they were in a measure unsuccessful. Apropos of these, a writer in the *Revue Scientifique*, publishes the following observations.—TR.

The reading of the article by Prof. Laborde, *Recherches Experimental sur la tete et le corps d'un Supplicie* (experimental researches on the head and body of an executed criminal), determined me to publish the following observations made on the head of a condemned criminal executed at Saigon in 1875.

The observations may perhaps seem bare of all scientific character. In fact, there were no precise data; no definite programme well mapped out in advance, no competent witnesses, and lastly no experimentation was possible, as the family and friends of the condemned were present to the last moment, and carefully gathered up his remains. I have no other intention in writing these lines, than to make known, apropos of a capital execution, certain new conditions and some new phenomena, hoping that other observers, more fortunate than myself, will be mindful to carefully observe and control (if by chance similar conditions offer themselves) the phenomena which they shall have observed, and which I am positive can not fail to be similar to those which I have had the opportunity to observe.

The place of execution was the plain of Tombs, a vast sandy expanse, serving as a place of interment for the Anamites and Chinese. Four Anamite pirates, taken with arms in their hands, were to be decapitated at one time. The chief of the band, a man in the best years, of great vivacity, nervous, well-developed muscles, brave, without bravado, and firm to the last moment, attracted my attention, and I resolved to devote my observation to him alone.

But before proceeding with my recital, I am obliged to give a few details on the manner of capital executions in the extreme Orient.

The condemned, with his hands tied behind his back, kneels down before a stake solidly fixed in the ground, to the summit of which his fetters were attached; he bent his head and trunk as much as possible, so as to increase as much the intervertebral spaces, and if necessary (and it sometimes becomes necessary in pusillanimous persons, but was not in this case), an assistant seizes the long hair of the condemned and thus increases and maintains the flexion of the vertebral column. The executioner then marks with the juice of the betel the particular interstice, holds with his two hands his saber a broad blade, long and thin, at thirty centimeters at the most above the neck of the victim, and, on the signal being given, strikes rapidly, drawing the arm toward himself, with a movement like that of sawing, and with a single stroke (ordinarily that suffices) separates the head from the trunk.

It is not my purpose to discuss the inconveniences of this method of decapitation. It is unnecessary to say what great dexterity is requisite on the part of the executioner, and what great *sang-froid* on the part of the condemned. One can easily imagine what deplorable scenes may occur when one of these conditions is wanting, and especially when we know that the weapon employed can easily traverse the soft parts, but is impotent to divide the bones.

On the other hand, it will be recognized that the Anamite method is the only one that permits a certain avoidance of contusion and commotion of the spinal cord, which the knife of the guillotine can not fail to cause, if it does not exactly traverse an intervertebral disc. We can easily imagine how such commotion may cause a condition of stupor, rendering all ulterior manifestation of the cerebral functions impossible, and we need therefore not be astonished if we find no trace of them, as soon as the bodies of the vertebra have been brutally divided, as occurred in the assassin Campi. The shock resulting from the recounter of the knife of the guillotine with the bodies of the vertebra, must suspend all nervous function, just as it occurs in the beef that is beat to death, or still better in the rabbit when we strike it behind the ears; and even if all necessary precautions were taken to arrest the hemorrhage, we could not say with any degree of certainty that the movements observed on the face were the result of voluntary contractions resulting from conscious sensations.

These are the observations that I have been enabled to make under conditions exceptionally favorable where chance had placed me. Without, for one moment, losing sight of the criminal I had determined to observe, even to the exclusion of his companions, I exchanged with the officer charged with the conduct of the execution a few words in a rather loud voice, and I noticed that on his part the condemned examined me with the most marked attention. The preparations completed, I placed myself about two metres from him; he had knelt down, but before bending his head he exchanged a rapid glance with me.

The head fell about 1^{m} 20 from me, and without rolling, as usually occurs; but the cut surface settling itself immediately on the sand, the hemorrhage was thus accidently reduced to a minimum.

At this moment I was frightened at seeing the eyes frankly fixed on mine. Not daring to believe it a conscious manifestation, I rapidly described a quarter of a circle around the head lying at my feet, and I was able to verify the fact that the eyes followed me during this movement. I returned to my first position, but slower this time; the eyes followed me for a very short moment and then suddenly left me. The face at this moment was expressive of a manifest anguish, the poignant anguish of a person in a state of acute asphyxia. The mouth opened violently as if for a last breath of respirable air, and the head, displaced from its equilibrium, rolled on the side.

This contraction of the maxillary muscles was the last manifestation of life; from 15 to 20 seconds since the time of the decapitation.

From these facts I believe I may conclude:

1st. That the head separated from the body is in possession of all its faculties, as long as the hemorrhage does not pass certain limits, and the quantity of oxygen dissolved in the blood is sufficient for the maintenance of nervous function; that is to say for a few short moments, and hardly exceeding half a minute. It was during this time that the executed criminal was able to raise his eyes to me, to follow my movements around his head, and, if one is please to admit that I was not deceived by my imagination, to recognize the person who had attracted his attention a few moments before his execution.

2d. That the repeated convulsive movements of the inferior maxillary, when the head has been detached from the trunk—movements which, without doubt, have given rise to the well-known expression "to bite the dust"—are nothing more than the habitual reflexes of the face in a case of acute asphyxia. These reflexes can not fail to manifest themselves when the little blood still retained in the head of the executed person flows out or becomes disoxygenated. They are caused by the sensation, probably conscious, of a lack of the necessary oxygen in the blood remaining in the head.

If my conclusions are accepted, we will be led to conclude further that decapitation in certain determined cases may become a punishment absolutely barbarous, it being possible for the consciousness of the patient to subsist for a certain time after the execution. But in the great majority of cases these fears are chimerical. It is almost impossible that the vertebral column, struck obliquely by the knife of the guillotine should not receive a sufficient shock to suspend at once the cerebral functions. That these fears should be well founded would require the concurrence of two exceptional circumstances; first, that the knife should pass in the intervertebral space without touching the bone; and lastly, that the head should fall just so that the cut surface is directly applied to the layer of sawdust or bran which is placed to receive the remains of the executed. The bran or sawdust may, within certain limits, play the *rôle* of absorbent, or hæmostatic substance, retard the hemorrhage for a few moments and thus prevent loss of consciousness. It would be necessary then, from a humanitarian standpoint, to abolish the use of these substances.

I can not speak of the trunk, as I had not the leisure, at the execution mentioned, to observe it. But I have been enabled to observe it on other occasions, and have always noticed the following particulars:

The head once detached—and it must not be forgotten that the trunk can not fall, maintained as it is in place by the bands attached to the stake behind it—the trunk raises up bruskly and assumes the vertical position, and at the same time there spurts forth the highest column of arterial blood, reaching sometimes one metre, and even more.

The straightening up of the trunk and the jets of blood being simultaneous, we can admit a relation of cause and effect between these two phenomena and the fact that at each new systole, manifested by the projection of a column of blood, the trunk straightens up to bend back the next instant. Very soon the jets of blood rise no higher than a few centimetres, and the movements of the trunk are reduced to simple oscillations. After a dozen or fifteen systoles all the blood is evacuated, and the trunk remains immobile and suspended as it were to the picket which prevents it from stretching on the ground.

I have never been able to observe a raising of the ribs on the drawing in of the epigastrium, or any other sign of an attempt at respiration.

Nobody can be astonished thereat; the medulla oblongata being charged with the command of the respiratory movements.

The heart alone seemed to me to continue to live of its own inherent life, as demonstrated by the violent systoles, powerful enough to effect the straightening up of the trunk. —*Pettigand. Tribune Medical.*

Marion County (Indiana) Medical Society.

PRES., JOHN CHAMBERS, M. D. SEC., F. C. FERGUSON, M. D.

August 12, 1884.

DR. CHAMBERS read a paper on THE TREATMENT OF PLEURISY AND OF SERO-FIBRINOUS AND PURULENT EFFUSIONS IN THE PLEURAL SACK.

The doctor said that an acute attack of pleurisy, uncomplicated with disease of other organs, is usually very amenable to treatment. If seen at an early stage of the disease when the well-known "stitch" in the side is complained of, morphia not only relieves the pain, but, by subduing irritation, has a positive curative influence on the inflamed part. Its good effects are as conspicuous in pleuritis as in acute peritonitis. If the temperature is high, aconite in one or two minim doses every hour is a useful remedy, and quinine in anti-pyretic doses had seemed useful in many cases in his practice. The derivative action to the skin of sinapisms, turpentine stupes and poultices were highly beneficial. He had not used blood-letting, either general or local, for ten years, and had not seen any reason to regret its exclusion.

After quoting from Neimeyer, Albutt, Barthalow, Freuntzel, Roberts, and others, on the effects of blood-letting in pleurisy, the speaker said: "While it is thus shown that the majority of modern authors favor the abstraction of blood, yet we notice how careful they are to limit its use to cases which are attended by high febrile action." He thought that such cases were rare in city practice. Strapping the affected side, as recommended by Roberts, was often highly beneficial, and he quoted that author as to the good effects of that method of treatment, as follows:

1. "In cases of dry pleurisy, which are very common, especially in connection with phthisis, as well as exceedingly distressing, it gives almost immediately complete relief, so that patients can breathe and cough comfortably, and are able to follow their occupation without any difficulty.

2. "The quantity of inflammatory products poured out will be limited by keeping the parts at rest.

3. "The rest and pressure may aid absorption."

Continuing, the doctor said that the great majority of cases of acute pleurisy, if judiciously treated, would not be attended by a great amount of effusion. Large effusions were especially met with in the sub-acute or chronic forms of the disease. In all cases it became a matter of great importance to get rid of it as soon as possible, because a serous fluid in the pleural sac might quickly become purulent, and because of the injurious effects of pressure on the neighboring organs. To this end he did not place much reliance upon cathartics as a measure of treatment, as recommended by authors, except for the purpose of keeping the bowels open, but regarded these in many cases as positively injurious. As a diaphoretic he regarded pilocarpine in $\frac{1}{8}$ grain doses, hypodermically, twice a day, as the most reliable, but said it was a dangerous remedy if there was any displacement of the heart or weakness of that organ. The liquor ammoniæ acetatis in his hands was a safe and usually efficient diaphoretic, but he had never been able to satisfy himself that free sweating had accomplished anything in removing a pleuritic effusion. As a diuretic, he had used the acetate of potash more than anything else. Iodide of potash, in 5 grain doses, three times a day, should be tried in all cases, and iodine should be applied to the affected side. Blisters were frequently beneficial, but to be of any use they should be large, so as to produce a very free discharge of serum from the raw surface. They should remain on the skin for six or eight hours, and after removal a warm poultice should be applied. Blisters should never be applied to the back part of the chest, because it interferes with the rest and comfort of the patient. If the effusion did not yield in two or three weeks, tonics of iron and quinine should be given, and in anemic cases these might be desirable even at an early period of the disease. In cases which resist treatment, the physician was often at a loss to determine whether paracentesis should be performed or not, and this raised the question: When is it proper to tap? How long could we allow an effusion to remain in the pleura without serious and permanent pressure effects on the lung? In answer to the latter question the doctor said there was no definite time after which a lung bound down and pressed down, might not be capable of re-expansion. It depended upon the amount of compression and on the thickness and degree of organization of the false membrane on its surface. If the effusion was moderate and the dyspnœa slight, we might wait three or four weeks, but after this there is risk in delay, although many cases of months' standing had finally yielded to medical treatment, the lung expanding in due course to its normal volume. As bearing upon this point, the doctor quoted from Roberts the following rules as being the chief circumstances under which paracentesis is called for:

1. "Whenever there is a large effusion accompanied with dangerous symptoms, namely, severe dyspnœa, and especially orthopnœa, a tendency to cyanosis, or symptoms indicating serious interference with the functions of the heart. In such cases delay is highly dangerous, as sudden death may occur at any moment, and the relief which follows the removal of the fluid is usually very marked.

2. "In cases of considerable effusion, which, after a fair trial, do not yield to treatment and show signs of absorption.

3. "In all cases of double pleurisy when the total fluid may be said to occupy a space equal to half the united dimensions of the two pleural cavities.

4. "When the fluid is known or suspected to be purulent.

5. "When a spontaneous opening has been formed toward the upper part of the chest. The existence of pyrexia, or some constitutional diathesis, such as tuberculosis, or of general debility, does not contraindicate paracentesis in pleurisy, and the removal of the fluid often causes marked improvement in the general symptoms."

In all cases the doctor recommended that an exploratory puncture should be made with a hypodermic needle before proceeding to the major operation, saying that if a mistake in diagnosis had been made—and this might happen even to the best of us—the preliminary puncture would "make our retreat less humiliating." The operation should be made under the strictest antiseptic precautions. The skin should be washed with carbolized water, the trocar and canula dipped in carbolized oil and then plunged in to the depth of an inch with a quick and firm thrust, care being taken to avoid striking the margin of a rib. As sudden death had occurred from the withdrawal of a large amount of fluid, it was safer to draw off only a quart of fluid at one sitting, and repeat the operation as often as might be necessary.

A slight rise of temperature might take place after the operation without any unpleasant result, but if it was considerable, and especially if there was reason to fear that the fluid was becoming purulent, an exploratory puncture should then be made, and if a purulent fluid was found, aspiration should be performed at once.

In reference to the best method of evacuating the pus, the doctor said if the purulent collection was large, tapping should be used as a preliminary measure, but it could not be relied upon in the great majority of cases as a curative measure. In all cases where the pus was fetid, and even in the great majority of cases where it was found sweet, the radical operation by free incision gave the best results. A suppurating pleura should be treated as a large abscess, by free incision at the most dependent point. All instruments used should be thoroughly disinfected, and the whole operation and dressing should be done by the antiseptic method. After the operation the temperature would fall, and if it arose during convalescence, it would almost certainly be due to occlusion of the opening. To prevent this a drainage tube should be inserted. Injections were worse than useless. In reference to the resection of a portion of a rib, recommended by some authors, the doctor said that if a neglected empyema had shrunken, or discharged spontaneously, or if, after opening, the continuance of the discharge seemed to depend on rigidity of the chest walls and arrest of lung, resection of a portion of two or three ribs might carefully be considered, but such cases would become rare, as diagnosis and early operative relief were more generally understood.

DISCUSSION.

Dr. Newcomer said the first case of pleurisy he ever treated was a stout, muscular negro. He gave him tartar emetic, *secundem artem*, but in a little while a messenger came for him with the assertion that the patient was dying.

The man was very sick from the treatment, but stimulants relieved him and he got well. He now gave morphia or opium to relieve pain, and regarded it as the sheet anchor in the treatment of pleuritis. If a case was properly treated in the start we rarely had any effusion. Aconite is a valuable remedy. In cases of effusion he usually gave the bichloride of mercury with iodide of potash. Morphia and aconite with poultices will, in the great majority of cases, control them and prevent them from going on to serious results.

Dr. Harvey related the history of the following case: An old physician had been thrown from his buggy, fracturing his leg, several years ago; the only history that he ever had in which he could have contracted pleurisy. Had been sick for several months, when he was called to see him for disease of the prostate gland. On examination he found dullness over the right side; it seemed more like a dullness from disease of the liver than from the pleura. There was no bulging of the intercostal spaces. One week ago he came to the city. There was flatness over the right side, and Dr. Chambers made out a diagnosis of effusion by a change of dullness on change of position of patient. He had often, in former years, seen a wet cup relieve the pain of pleurisy as rapidly as the hypodermic of morphia does to-day, but of late years he had used morphia, hypodermically, also aconite and poultices.

Another case was a gentleman from the South. While making his escape from the South during the war, he was exposed a great deal. He had pain and great effusion in the left side; heart pushed over to the right side, and liver and spleen pushed downward. He drew off a gallon of fluid with the aspirator, which gave great relief. This operation was repeated from time to time until ten gallons of pus were taken. He then returned South, where a physician introduced a silver tube into the opening, which slipped into the pleural cavity and remains there yet, although the patient has made a good recovery.

Dr. Bigelow said painless cases needed no morphia or bleeding. Painful cases needed prompt treatment. He did not agree with the essayist that hypodermic injections of morphia over the seat of pain gave better results or relieved the pain more promptly than when injected into any other locality. Morphia, in his opinion, had no anodyne effect until it was absorbed into the circulation and came in contact with the nerve center. Wet cups only relieved pain through imagination. Bleeding, when practiced, should be on hyperæmic cases, and in sufficient extent to relieve the high arterial excitement and excite the absorbents. In his experience there was not one case of effusion in 1,000 of pleurisy, and where there is effusion it usually comes from traumatic causes. In opening the pleural cavity no attention should be paid to the admission of air. Air will do no harm; and even if it did it would be impossible to prevent it. Would use blisters in three or four days after effusion had taken place, and give calomel in $\frac{1}{10}$ to $\frac{1}{15}$ grain doses.

Dr. Thompson did not agree with Dr. Bigelow that local applications of morphia did not have a quicker effect than when applied at a distant part. Atropia applied locally to the eye has a better effect than when given by the mouth; it has a local effect on the terminal expansion of the nerves. In his practice before the war he was in the habit of bleeding by venesection for pleurisy, and with good results, but while in the army he trusted to local applications and opiates, with equally good results. He had no doubt that many cases of effusion had escaped his notice, but where he had seen them early he had no trouble in controlling them.

Dr. Bigelow could see no analogy in the application of atropia or morphia to a diseased cornea and an inflamed pleura. In the one case the medicine came directly in contact with the diseased cornea, in the other the inflamed part was at a distance.

Dr. Woolen had had no experience in the treatment of effusion, though he had had experience in the treatment of pleurisy, and he indorsed the local treatment of the disease by hypodermics of morphia. In his experience and observation, a hypodermic of morphia over the seat of pain was preferable. If, as Dr. Bigelow said, the relief afforded is owing to the imagination, it did not invalidate the fact that it was the better method. He related the case of a thin, anæmic colored woman who called on him and asked him to bleed her for a pleuritic pain. He took about one-fourth pint of blood, when the patient was relieved of all pain. She took no further treatment, and next day was well. He had never used any one remedy with better results than venesection in congestion and inflammation.

Dr. Bryan said he had only met with three or four cases of effusions in his practice, and had in these cases evacuated the fluid. In two or three cases the discharge had lasted for several months. Topical applications in acute pleurisy do a great deal of good. A warm room, a hot foot-bath, hot teas and the Fothergill poultice were of great value in promoting the action of the skin and relieving pain.

Dr. Harvey said that theoretically it looked plausible that morphia would act as an anodyne as rapidly when injected at a distant part from the pain as when directly over the seat of pain, but practically we know it does not. Blisters, when applied to the chest, just at the period when the inflammation is terminating, will hasten absorption, but when applied earlier they do no good.

Dr. Chambers, in closing the discussion, said that in the last two or three years he had emptied at the City Hospital no less than ten or twelve cases of pleuritic effusion, and in this city, within the same time, no less than four cases, so that Dr. Bigelow's statement that not one in one thousand cases of acute pleurisy eventuated in effusion, could not be correct. In the cases at the City Hospital, in not one of them was there any bulging of the intercostal spaces, and he believed that this sign was not of so much importance as had been thought. Bulging was absent in one case where the whole of the right side was full of fluid, with the diaphragm and liver pushed down, the latter forming a prominent bulging, and it became a question whether it was a distended gall bladder, a distended stomach or an abscess of the liver. In regard to the hypodermic injections of morphia over the seat of pain, he has a patient who occasionally suffers intensely from neuralgia of the stomach, and it requires enormous doses of morphia hypodermically, unless they are injected over the stomach. He said that the more rapid action of morphia when injected over the seat of pain was, in his opinion, due to the communication of the lymph spaces. He did not believe that blood-letting would give more prompt or more permanent relief than morphia, and the latter was a more pleasant and safer remedy.

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Professor Parvin teaches that the three principal indications in the treatment of puerperal septicæmia are, first, to thoroughly wash out and disinfect the uterus; second, to reduce the temperature by the application of cold and the administration of quinine; and third, to relieve pain by rest and opiates.

Selections.

Shock in Railway Injuries.

Recently Dr. C. B. Higgins, of Peru, Ind., read a paper in which he confined himself to shock proper, ignoring the condition occasioned by loss of blood which so closely resembled shock in its symptoms, but which treatment demonstrated to be of an entirely different nature. Neither did he consider the remote manifestations of shock, but would leave that branch of the subject to the neurologists.

With the exception of burns and scalds, railway injuries were attended with greater fatality than wounds received in any other way. It was generally conceded by surgeons that the cause of the unusual mortality following lesions of this character was due to the fact that in a majority of the cases the shock was in intensity out of all proportion to the injury received. Most writers on this subject failed to give sufficient prominence to physical influences in considering its ætiology. In Dr. Higgins' opinion, mental impressions were the chief, if not sole, elements to be considered in connection with the cause of the intense degree of shock so often observed following railway accidents.

Not long ago he had been called upon to visit a young man who had fallen in front of his engine and had his leg crushed; there was no other injury, yet he died, in less than three hours after the receipt of the hurt, of shock. He was confident that death would have resulted had there been no bodily injury. The terror induced by the contemplation of the consequences of the fall was sufficient to produce a state of mental depression from which it was impossible to recover. This young man was a perfect specimen of physical manhood—aged twenty-five, of sanguine temperament, and guilty of no excesses.

Shortly after the occurrence just reported, Dr. Higgins was summoned to see an old man of seventy-two, who, while in an oblivious state of intoxication, had been run down by an engine, and received a wound to all appearances as serious as the one in the case previously mentioned. In the latter case there was no evidence of shock, and the patient was so thoroughly under the influence of liquor that the leg was amputated in twenty minutes after the infliction of the wound, without the administration of any *other* anæsthetic. The patient made a rapid and perfect recovery.

It was not his wish to have it understood that he had drawn his conclusions from the observation of the two cases reported, for he could cite a number, all tending in the same direction; in fact, all his experience as a surgeon led to the conviction that when a wound was inflicted without warning, the attending shock was generally of little consequence. He had never witnessed an extreme degree of shock occurring in a person who had been injured while in a state of intoxication. How often did we hear the remark in reference to an intoxicated person who had survived some serious accident, "Had he been sober it would have killed him!"

Another case strengthened his position. An insane spinster, aged thirty-eight, eluded her attendants and threw herself in front of a moving train, receiving injuries which required the amputation of both legs. In her case there was no hemorrhage and no shock. When freed from the influence of the anæsthetic, after the completion of the operation, she was found to be in possession of her right mind and had so remained ever since. She speedily recovered from the effects of the accident without the occurrence of an unfavorable symptom.

Entertaining the views he did in relation to the cause of shock, his treatment would naturally be directed toward securing a state of mind as little influenced by fright as possible. Professor John C. Dalton, in his work on "Physiology," when speaking of shock, said: "It is only after nervous irritability has been restored by repose that voluntary motion and sensation are re-established." It would be well for us in the treatment of shock, such as we meet with in railway practice, to keep this statement well in the foreground and govern our efforts to secure reaction accordingly. Many patients had been thrown into a condition of more profound collapse by the too vigorous application of so-called restoratives, who, if left to themselves in seclusion and quietude, would have recovered.

It was of the first importance to remove the patient, as soon as possible, from the scene of the accident, to prevent his being surrounded by the curious crowds that were sure to congregate upon occasions of this kind. The remarks made by thoughtless and ignorant people in the hearing of the victim, in reference to the serious nature of the injury, added greatly to his depression and lessened his chances for recovery. He should be conveyed to a well-ventilated apartment, and only such persons admitted to the room as might be necessary to care for him properly. The surgeon and attendants should make every effort to conceal their anxiety, for the apparently lifeless patient was often possessed of sufficient vitality to comprehend his surroundings.

It would generally be found that the victim had been liberally dosed with whisky or brandy before the arrival of the surgeon. He wished here to express his unqualified approval of the position taken by the late Dr. John T. Hodgen, at the meeting of the American Medical Association in 1873, in reference to the administration of alcoholic stimulants in the treatment of shock. When the stomach was sufficiently active in these cases (which was not often) to allow of their being appropriated, they were of no use. It frequently happened that, when reaction was secured, the stomach was full of the alcohol, and, the assimilative function being re-established, the stimulant was rapidly appropriated, and we soon had a condition to contend with which was as dangerous and fully as difficult to overcome as the original trouble.

The chief object in the treatment of shock was to secure repose. This was best accomplished by the hypodermic administration of morphine, and in these cases it would be found necessary to use more than the ordinary dose to obtain the desired effect. If from any cause morphine should be contraindicated, ether might be administered hypodermically in drachm doses, frequently repeated. In addition to this treatment attempts should be made to restore the temperature of the body to the normal standard by the application of dry heat. These applications should be made with as little disturbance to the patient as possible. The practice so frequently resorted to of applying cloths wrung out of hot liquids of various kinds, owing to the rapid evaporation, had an effect just the opposite of that intended. The use of mustard plasters, friction, electricity, etc., he disapproved of, as the excitement attending their application overbalanced any good they might accomplish.

If we failed to secure reaction by the maintenance of absolute quiet, the judicious administration of sedatives and the application of heat in the proper manner, we certainly should not add to our chances of success by restoring to the numerous other applications recommended by various authorities as useful in this condition.

As to the time for operation in cases of shock: If the patient showed signs by increased strength of pulse and otherwise that reaction was being established, the sooner the operation was performed the better, for the administration of the anæsthetic had a decidedly beneficial influence in promoting the condition of mind which we had been directing our treatment to secure. He thought a surgeon, unless he had so firmly established his reputation as to be out of reach of adverse criticism, would be very foolish to begin an important operation upon a patient so thoroughly under the influence of shock as to be insensible to pain and oblivious to all surroundings, and, consequently, in no need of an anæsthetic.—*Jour. Amer. Med. Association.*

Sea-Sickness.

In the course of an article in the *British Med. Jour.*, July 26, 1884, Dr. Astley Gresswell says:

This complaint varies greatly in degree. Some never suffer from it; they are, however, in a decidedly small minority; some suffer severely at first, but quickly acquire toleration: others apparently never succeed in wholly overcoming the effects of the movement of a ship at sea. We may mention that it occurs in some birds, and is known in many quadrupeds. Most children in health quickly acquire toleration. Women suffer perhaps more generally than men; and it is rare to meet a woman who, though a great traveler by sea, does not suffer severely when a vessel is freely pitching. It is common, also, to meet men who, though great sea-travelers, suffer somewhat when a vessel freely pitches; the customary pipe is not taken, the appetite is in abeyance, and there is a decided preference for the recumbent posture. The suffering is most marked when there are both pitching and rolling, or, as some say, wriggling. The voyager generally quickly becomes adapted to rolling when occurring alone, but not so readily to pitching, which is the movement that longest retains its influence; the symptoms also are the more severe the greater the angle through which the vessel pitches, so that, for instance, the occupants of stern-cabins suffer more than those of cabins amidship; and, moreover, they are more severe when standing than when sitting or lying. Pitching would, by virtue of the law of inertia, cause sudden changes in the amount of fluid contained within the cranium. During the descent there would be some addition to the intracranial fluid-pressure, and during the ascent some reduction of it. In rolling, again, similar alternations of pressure doubtless occur, but they would not be so great, for a ship generally rolls through a much smaller angle than that through which it can pitch.

Pitching would also cause many other changes in the body; it would, for instance, cause sudden slight tractions upon the mesentery, small omentum, and suspensory ligament of the liver, in consequence of the inertia of the small intestines, stomach and liver; and one may be tempted to suppose that, in this way, pitching may cause reflex vomiting. It would, perhaps, act similarly upon the aorta, by reason of the inertia of the heart. If, however, pitching cause sudden changes of intracranial fluid-pressure, we might expect to find vomiting associated with it. Anæmia of the brain causes vertigo, nausea and vomiting. These symptoms are present in cases of hemorrhage; they also occur on suddenly taking the erect posture, and especially is this the case with anæmics and convalescents; a convalescent typhus-patient will sometimes vomit while being helped to sit up in bed; and a patient rendered anæmic by hæmatemesis will very probably vomit if raised, so that, if raised before the vessels have thoroughly healed, the latter may be opened up afresh. Thinking that sudden changes of intracranial fluid-pressure had to do with the symptoms of sea-sickness, I tried the administration of ergot and digitalis, hoping, by raising the blood-pressure, to reduce the effect of pitching upon the intracranial fluid. I gave these drugs freely to as many as a hundred and ninety persons suffering from sea-sickness; and, in very many cases, they apparently acted remarkably well, some (especially lads) requiring no more than one or two doses. I should say that chloroform also was almost always given. It may be premature to suggest a *rationale* as to why sudden changes of intracranial fluid should be attended by nausea and vomiting; it may be owing to a disturbance of the co-ordinate action of the higher cerebral centres, or of the lower more automatic centres; it may be that it acts upon these centres by disturbing the perilymph or the endolymph.

The peculiar sensation in the chest and abdomen when swinging, or at the sudden start or pull up of a railway carriage, may be attributable to change of mutual pressure of parts within the abdomen and chest. Swinging often, indeed, causes sickness; but the movement of swinging differs greatly from that which is undergone in a ship when freely pitching. In pitching, there may be such sudden change from ascent to descent, that one feels as if left in the air; and, again, such sudden change from descent to ascent, that one feels as if about to pass through the deck. And it is, I think, just this fact of sudden interruption of the movement that constitutes the difficulty to be overcome on a ship; moreover, it is just at these times, and often only at these times, that great sea-travelers experience nausea.

This view of the etiology of sea-sickness may be objected to on the ground that quadrupeds suffer from it. Pitching would, however, act on the intracranial pressure of the quadruped, when standing in the same direction as, though to a less degree than, it would in the case of man.

Whether, however, the etiology here advanced be correct or not, the drugs above mentioned seemed to act so well as to justify, I have thought, these few remarks. It may be well to add that some irritants have a marked effect in checking, at any rate, the vomiting of sea-sickness; and of these, the most useful, perhaps, is tincture of capsicum; spiritus ammoniæ aromaticus also is of value.

What is the Cholera Microbe?

THE nomenclature of bacteriology, as is always the case in every new science, is by no means satisfactory. The discoverer of each new form of micro-organic life has given it whatever name best suited his fancy, and while this was doubtless satisfactory to the word-coiner, it resulted in a confusion of terms sufficient to appall even the most stout-hearted tyro in bacterial studies. Cohn has done much by his classification to simplify the question, and although his system is by no means perfect, it has been adopted by most of the German writers, Koch among the rest. Yet the latter seems to have departed from this nomenclature in one notable instance, at least, in the designation, namely, of the supposed cholera microbe. He has called it the comma-bacillus. The qualifying word "comma" was not happily chosen, for it suggests an organism of curved form with a head and a tapering extremity, whereas the cholera microbe is of equal size throughout, with no distinction of its extremities. But more than this, as Koch himself says, the "bacillus" is probably not a bacillus at all, but rather a spirillum. Indeed, there are many points of close resemblance between the spirilla and the micro-organisms found in the dejections of cholera patients.

Dr. Mühlhäuser, of Speier, has recently made a study of spirilla, embodying his results in an interesting article appearing in *Virchow's Archiv*, No. 1, 1884. This organism he describes as existing in the form of a long, fine thread, twisted into a number of spiral turns. The spirals are of equal size and may vary in number from two to ten or more. There is no appearance of head or tail, each end of the spiral thread being of equal thickness. These bodies are possessed of the power of independent motion, turning upon themselves like the screw of a propeller. The spirillum seems to be inclosed in a sheath, like the axis cylinder, which terminates at each extremity in a cilia-like prolongation. It is probably to these cilia that the body owes its power of motion. The spirilla grow by direct increase in length, adding coil upon coil until the number may reach a dozen or more. The larger the number of spirals the slower is the motion.

Spirilla are reproduced by fission, and never by the production of spores. And here begins the likeness between them and the so-called comma-bacilla. The latter, Koch insists, are never reproduced by spores, the parent microbe must be present and alive, otherwise no reproduction of organisms can occur. Another point of resemblance lies in the weak powers of resistance possessed by these organisms. Koch says that drying kills the cholera microbe with absolute certainty, and Mühlhäuser says the same of the spirillum. The latter is even killed by sunlight, but seems not to be injuriously affected by cold, and this fact is also affirmed of the cholera germ, which has been seen to revive even after having been frozen. Both these forms of micro-organisms depend upon oxygen for their existence, a peculiarity which separates them sharply from many other forms of bacterial life. Mühlhäuser saw in some fresh culture-fluids certain minute shapes which seemed to be straight, and resembled the bacterium termo, but which he found on closer inspection to be bent, and to be spirilla of but two coils, thus resembling also in form the cholera germ. Another peculiarity of the spirilla was that they were sometimes joined together, end to end, like links of a chain. Koch also saw this union in the case of the cholera microbes, two being joined in the shape of an S, or at times there were longer strings, looking like the spirals of a corkscrew. Of course, in this case the resemblance is only in outward form, and may be apparent only, but the other points—the absence of spores, the slight power of resistance to outward influences, cold alone excepted, and their dependence upon oxygen for existence—would indicate a near relationship, even though they may not be members of the same family. —*Med. Record.*

Opium Poisoning

NASHVILLE, TENN., *August*, 1884.

To the Editors of the Weekly Medical Review: The discussion on the treatment of opium poisoning in the St. Louis Medical Society, as reported in the number of the *Review* of August 16, reminds me of a case I saw last year. I am surprised that no one spoke of the hypodermic use of ammonia, as it is a means of undoubted value, as this case will illustrate. Dr. Hughes and Dr. Atwood testify to the value of ammonia per enema, but that is not as sure and effective as its hypodermic use. The case I refer to was a healthy, well-developed young woman, who had seen her lover at church with another girl, and so determined to seek peace by going over to the great majority on the side of the river where fickle lovers are unknown. She passed a restless night, and after a scanty breakfast visited a drug store and purchased a four ounce glass syringe, with a long, sharp point, eight ounces of laudanum and four ounces of chloroform. She retired to her room, bathed, dressed her hair, painted and powdered her face, put on her nightgown, swallowed about two or three ounces of the laudanum, injected a syringeful into the vagina and plugged the orifice with a lace handkerchief. She read the heartless villain's letters until she became stupefied by the opium, and then placed a hat-box over her face, so arranged that the uncorked chloroform bottle under it would not fall over. She was discovered in this position about noon, and I was hastily summoned and found her deeply comatose, the respiration not being over five per minute.

It was too late to derive much benefit from attempting to produce emesis or use of the stomach-pump; so the hypodermic use of atropia was resorted to and the usual routine of trying to arouse the patient. Owing to the difficulty in getting her to swallow, I ordered a large enema of hot coffee. The nurse gave me a queer look and asked me to examine the patient, directing my hand to the vulva. The handkerchief was thus discovered. It was found that the hymen was intact, with an unusually small orifice, and the vagina was found to still contain some of the tincture. The point of the syringe had evidently been passed carefully through the orifice and the four ounces being injected, the handkerchief was applied to plug up the opening; but most of it had escaped, as shown by the bed and handkerchief. The atropia and coffee not holding out much hope of recovery, a battery was used, but with only temporary benefit, so I concluded to resort to ammonia, as I had, with good results, in two other cases.

A drachm of the aromatic spirits was injected into the cellular tissue of the hip, and in less than a minute she gave a deep sigh and turned over in bed, the respiration going up from 5 to 9. In half an hour it began to decline again, so the operation was repeated; before the needle was fairly out she sat up in bed and looked around for a moment, placed her hand at the site of the injection, and lay down again. The respiration was maintained above 12 from that time on, and coffee could now be given in large quantity. In a few hours she was out of danger. The first injection caused a painful lump which disappeared in a few days, the second caused an indolent abscess which gave some trouble.

The recreant lover returned to his allegiance with a vengeance, I suppose, as I saw her in a drug store, some weeks afterward, purchasing a flat surgical sponge, some sulphate of zinc and a large size female syringe, the point of which would not have passed at the time of the examination. Let us hope that laudanum will no longer be needed, locally, to assuage the pangs of disappointment.

Yours truly, C. C. FITE, M. D.

Uræmic Amaurosis.

URÆMIC amaurosis, a loss of vision more or less completely seen in cases of uræmic "intoxication," but not showing any changes in the fundus of the eye recognizable by the ophthalmoscope, is a subject that receives but a passing notice in the text-books on ophthalmology.

Dr. A. Friendenwald, in the MEDICAL NEWS for August

8, 1884, says that transient loss of vision is observed among other symptoms of uræmic intoxication, but that pathology does not satisfactorily explain just how the eye becomes involved. It may occur in cases where it would be least expected, and, on the other hand, it may be absent in cases in which uræmic symptoms are most exaggerated. In some cases it is the only prominent symptom. The same irregularity is observed in the appearance of amaurosis as in that of other symptoms of uræmia. We find it equally difficult to explain the absence of all uræmic symptoms in many cases of kidney disease, in which the urinary analysis and the very pronounced dropsy testify to the existence of grave lesions; while, on the other hand, we are sometimes suddenly confronted with very threatening uræmic manifestations, when the urine may show but a trace of albumen.

This anomaly of vision, like all other signs of uræmia, is characterized by the suddenness of its invasion, the loss of vision from the first, or in a very short time, being complete. The ophthalmoscopic examination will yield entirely negative results, except where retinal degeneration pre-existed. The amaurosis is not restricted to any special form of kidney disease, but occurs in all forms, although, perhaps, more frequently in those met with in pregnancy and scarlet fever. Other uræmic symptoms may precede the amaurosis, such as headache and vomiting, and the patient may arouse from a convulsion or a state of coma with sight gone. Or, on the other hand, the loss of sight may be the first and most prominent symptoms of uræmic "explosion."

The prognosis, so far as the sight is concerned, is favorable, if the patient does not succumb. It may be re-established as suddenly as it disappeared, or it may return gradually, several days elapsing before full vision is regained. Sometimes vision remains somewhat impaired, permanently. In some cases there are several attacks of blindness.

The diagnosis is to be made between albuminuric retinitis and amaurosis without any apparent changes in the retina or optic nerve, dependent upon uræmia.

Treatment consists in free diaphoresis and purgation, the use of jaborandi and other means of combating kidney disease, and in pregnancy in inducing premature labor in certain cases with severe uræmic symptoms.

The author concludes:

"1. That when amaurosis suddenly overwhelms a patient in both eyes, with no ophthalmoscopic change, uræmia should be suspected, even in the absence of any other prominent uræmia symptom.

"2. That uræmic amaurosis will continue only as long as the uræmia exists, and will disappear when the function of the kidney is re-established. When permanent injury to sight is observed, it may be due to pre-existing retinal changes, not at all uncommon in Bright's Disease.

"3. That the chances for a full return of sight are somewhat impaired when the patient has been the subject of recurring attacks.

"4. That by exhibiting jaborandi and other means for inducing free diaphoresis, and by free purgation, a catastrophe may be averted in the general forms of uræmia; but when it occurs in pregnancy, premature labor is the only remedy which promises safety to the patient."—*Buffalo Med. and Surg. Journal.*

Pneumotomy.

The *Medical Times* has been publishing some interesting cases in which pus-secreting cavities in the lungs have been opened and drained externally with considerable success. There has also been an interesting discussion on the subject at the Royal Medical and Chirurgical Society, following the reading of a case in which this operation had been successfully accomplished by Mr. Gould, at the suggestion of Dr. Cayley. The patient was a girl about twelve years of age, suffering from a local gangrene of the lung of acute onset; other remedies had failed, and the girl was rapidly losing ground, when it was decided to puncture the lung and endeavor to drain the cavity of its gangrenous contents. So successfully was this accomplished, that a sequestrum of gangrenous lung was evacuated, and the patient made an excellent recovery. Dr. Biss subsequently related a case in which a basic abscess, with fœtid contents, had been diagnosed and a similar plan of treatment carried out by Mr. Marshall. The case was of a more chronic nature than the preceding, and not so easy of diagnosis. As might have been anticipated, it was less successful, but nevertheless the operation afforded the patient considerable relief during the short remainder of his life, and death was in no sense due to the operative measures adopted. Dr. Fowler gave the particulars of a very unusual case—that of a man who had swallowed a molar tooth. Disease of the lung with formation of a cavity in the base supervened, and threatened to prove fatal. The tooth was not removed, but the abscess was drained with a fair amount of success. Mr. Goodlee, Dr. Broadbent and Mr. Walsham related cases in point. In all alike, the advantages of freely draining away the pus were manifest, even when, from the nature of the case, a permanent cure was not attainable.

The operation consists in opening the abscess cavity, and putting in a drainage tube. It is variously done, either with or without previously incising the chest wall.

Thus Mr. Gould passed in a large trocar and canula, and, after withdrawing the trocar, introduced a drainage tube, and then withdrew the canula, leaving the tube in the cavity. Mr. Marshall cut down on the pleura, and after exposing it, pushed in his trocar to the depth of four inches. Mr. Goodlee, in his cases, excised portions of ribs, and used a scalpel, after having explored with a hollow needle in the first instance. The amount of hemorrhage appeared to vary, but in none of the cases was it severe, and in none was there any difficulty in arresting it. As regards the pleural cavity, while most of the speakers agreed that it would be better if it had been obliterated by adhesion, some seemed to think that the importance of its obliteration had been exaggerated.

The editor in his remarks inclines to the view that a healthy pleural cavity, could it be diagnosticated, would be a strong contra-indication, as a case within his knowledge proved that the accidental introduction, even of small portions, of gangrenous fluid into a healthy, pleural cavity, can be followed by severe inflammation, and possibly by gangrenous empyema.

Is Cancer Increasing?

We have been told frequently of late that cancer is increasing, and becoming more securely planted in our midst; and, if this be so, it is an important fact, but of such terrible significance, that we must needs require the most conclusive evidence. The Registrar-General distinctly says in his last report that the increase is not a genuine increase, but is due to increased accuracy of diagnosis, which is constantly tending to increase the number of deaths registered as due to definite diseases, at the expense of more indefinite groups.

Such a statement, we may assume, would not be put forth without the sanction of Dr. William Ogle, the Superintendent of Statistics, and one of the first of living vital statisticians. We may derive some comfort from this, and may, at least, suspend our judgment until the publication of the decennial summary of the Registrar-General; indeed, until that is published, the materials for an accurate judgment hardly exist in a form in which they can be easily analyzed. Meanwhile, we may point out one consideration which seems to have been somewhat overlooked. Excluding sarcoma, as we may do without materially affecting the proportion which the figures bear to each other, we may say that cancer is a disease of late maturity and senility; especially is this the case with men. Now, the death-rate from all causes has materially declined, and the average expectation of life is greater at the present time than it was a quarter of a century ago. Practically, it will be safe to assume that a greater number of people live into the period of maturity and senility, and therefore a greater number live into the age when cancer is prevalent. We might expect, therefore, to find more people dying of cancer at the present time than a quarter of a century ago. There is this further hopeful feature, that a comparison of the ages at which people die now and formerly, appears to show that the deaths are taking place now at a more advanced age; the percentage of deaths from cancer above 55 years of age is materially greater than it used to be. Lastly, the number of deaths among men is increasing more rapidly than among women; and about that fact there is this hopeful feature, that if we take 100 deaths from cancer among men, and 100 among women, we shall find that a far larger number of the male deaths occur after 65 than of the female deaths. About a third of the total mortality from cancer among men occurs after 65, while only a quarter of the total mortality from cancer among women occurs after that age. It would seem, therefore, that the increase in the deaths from cancer is due, in part, to an increase in the number of people who reach the cancer age, in part to an increase among men at an advanced age, and in part, perhaps, also, to a genuine increase in the grasp of the disease over the population.—*British Med. Journal.*

The Treatment of Pernicious Intermittent Fever.

Dr. W. H. Reed reports an interesting case, which yielded to treatment, in the *College and Clinical Record*, August 1, 1884:

His treatment was as follows: Immediately a hypodermic injection of one-sixth grain of morphiæ sulph.; hot sand-bag to lumbar region; one pil. podophyllin comp., and two grains of quiniæ sulph., in pills, every two hours, until twenty grains were taken. He was sent for hurriedly, with the statement that his patient was dying. On his arrival by her bedside, he found her in a sinking condition; in the meantime she had had several convulsions; was now at times in a low delirium, muttering inaudible and unconnected sentences, and picking at the bed-clothes. Her countenance was relaxed, tired, worn and haggard; skin somewhat cooler, and pulse almost imperceptible; heart sounds feeble; respiration slow and gasping. The pain had left the back, from the application of the sand-bag. He immediately stimulated her freely with whisky, which at first produced retching, but not vomiting; then he was informed that on two occasions previously she had vomited blood. He ordered dry heat over her stomach, which successfully allayed further vomiting and retching, thereby enabling her to retain all medicine administered. A strong milk punch was given at intervals during the night, and the quinine pills continued as before ordered. Next day he found his patient much improved; she was lying quietly in bed, her mind clear and buoyant, but she was much exhausted and debilitated. The delirium passed off about midnight, and her bowels moved freely toward morning. Her skin was almost normal in temperature, and but slightly jaundiced; heart sounds regular, but slightly feeble; respiration normal; no thirst; tongue coated with a rather heavy fur; she ate some prepared gluten and milk for breakfast. He prescribed—

℞ Hydrargyri chloridi mitis,	gr. ij.	
Pulv. ipecac.,	gr. ij.	
Pulv. ingluvin,	℈j.	M.

Fiant chartæ viij.
Sig.—One to be taken every two hours.

He also gave her ten drop doses of Fowler's solution three times a day. When he saw her again, two days later, his patient was out of bed, with skin comparatively clear; appetite returned, and she was commencing to feel strong again. At the septenary periods he prescribed twenty-four grains of cinchoniæ sulphas. One week later he diminished the Fowler's solution to five drops three times a day. Two weeks later he saw his patient; she was feeling exceedingly well, with no symptoms of a recurrence of the chill.—*Med. and Surg. Rep.*

Regulation of Diet.

As illustrating the great importance of this all-important question, we are glad to quote the following remarks from Dr. R. H. Gunning (*Edinburgh Medical Journal*, June, 1884):

The function which influences all others most is digestion. This all right, all is right, and *vice versa.* Cures, after operations, are accomplished by nutrition; and this will be good, or the contrary, as the digestion is good or the contrary. This subject of digestion and nutrition should be well understood by surgeons. The preparing a patient for an operation, or treating him after, hang much on this. Whatever dexterity a surgeon may have, he should also understand physiology well to have success. He may fail sometimes from neglect of the simplest dogmas of physiology. A friend and myself, when abroad, had many cases of cataract. We did the operation in the same way; he better than I, for I had no gift of hands. He lost very many of his cases, and mine succeeded. He said, one day, he could not understand this. I replied, "It is simple; you let your patients *eat and drink* as they and friends like, after the operation, while I starve mine for one or two days, till the wound is healed and the retina is safe." A full stomach or improper food will soon befool the best-done operation. I have cured serious fractures without fever intervening, merely by semi-starving the patient. In my own case, when shot in the head, I abstained from all but water, or a little tea or dry toast, for days, and had scarcely pain and no fever or erysipelas. After days I used stewed prunes, potatoes mashed with salt butter, to be simple and laxative. I took no wine and no meat for weeks, and a remarkable cure was the result.

In all cases, medical or surgical, attention must be given to the digestive organs, to see that no peccant or irritating matter exists, and that they be carefully watched afterward.

I once treated a lad for fracture of both thigh bones, a bullock-car having passed over his limbs. I set the limbs, and kept him semi-starved for days. Only gruel or weak chicken broth was allowed. He had no fever, and got round beautifully. On another occasion the car passed over him and killed him. In short, let all ingesta be in the smallest quantity, and of mild quality, to avoid inflammation. Spirits in every shape are injurious.—*Med. and Surg. Rep.*

Disease Caused by Water from a Graveyard.

The following cases present some points I think worthy of serious consideration: H., age thirteen, female, of previous good health, while at work in a field on October 1, 1883, just before taking her dinner, drank water from a branch which had its origin from the side of a hill that had long been used as a burying-ground. The place at which she drank the water was about one hundred and fifty yards from the source of the branch. About an hour after she had taken the water she complained of being sick, suffered pain in the head and very soon began to vomit, and continued until midnight, when a diarrhœa set up, from which she suffered greatly, complaining of aching all over, which continued for three days, when I was sent for to see her.

I found her with pulse 112, temperature 103° F., suffering intense pain in left hip and leg, tenderness on pressure over the sciatic nerve on same side; some swelling of the hip. I gave the patient a hypodermic injection of morphine, which gave some relief. The morphine had to be continued at intervals to produce rest.

On the third day after I saw her, her mother called my attention to a swelling of the labium majus of the left side. This very soon resulted in a large abscess which discharged profusely. A few days after this she complained of pain in the knee, wrist and clavicular articulations. These showed very little sign of inflammation at first, but in a few days suppurated. The parotid glands also suppurated. Patient died on the eighteenth day. The temperature and pulse varied very little from what they were when I first saw her. She was given quinine and iodine, and was kept on as nutritious a diet as could be had, consisting of beef, eggs, etc.

A sister who drank of the water at the same time and place was taken sick in the same manner, the abscess being on the scalp. This patient recovered. A year previous to this time, an older sister, after drinking at the same place, was taken sick in a few hours and had a long and severe spell of typhoid fever; she had no abscesses as did the others.

The owner of the land through which this branch flows, informs me that whenever he has permitted his stock to pasture in this field they lose their appetite, fail to eat and very soon get poor. He, knowing the bad effects of this water on his stock, had cautioned his children against drinking it.—*Dr. L. G. Hardman, in Atlanta Med. and Surgical Journal.—Louisville Med. News.*

Inebriety Following Injuries to Head and Body.

THE following conclusions may be accepted as representing the facts so far established on this subject:

1. Inebriety takes its origin directly from traumatism, particularly head injuries, in a certain percentage of cases.
2. Such cases are prominent in the sudden outburst of the drink-craving, its precipitate character and intensity passing into chronic conditions at once.
3. Complex psychical and physical phenomena, pointing to a general profound state of degeneration of the brain and nerve-centers, are present in nearly all cases.
4. The progress of these cases is generally uniform and along a certain definite line, with but few changes or variations.
5. In the history, heredity, moderate drinking, and habits of irregularity, are common factors preparing the way for the final developing of inebriety, growing out of the injury to the system.
6. The prognosis is always grave and the treatment of little use, unless it is adapted to each case and extends over a sufficiently long time to warrant a full restoration.
7. The pathology and psychology are unknown, but practically the surgeon should remember that a certain number of his cases who inherit some inebriate or insane neurosis, or are moderate users of spirits, are likely to develop inebriety from the slightest causes. Hence, alcohol should be withheld as a medicine at this time.—*Dr. T. D. Crothers.*

Three Successful Cases of Oöphorectomy.

BY PAUL F. MUNDÉ, M. D., OF NEW YORK.

THE technical details of the operation known by the various names of Battey's operation, normal ovariotomy, castration of the female, or oöphorectomy, as I prefer to call it, are so familiar to the profession, that nothing new can, for the present, be said about them. But the indications which call for and justify this operation, and the beneficial results which are to be expected from it, are questions by no means so well settled. There can be no doubt that the problem, when the symptoms, objective and subjective, *justify* the removal of the apparently healthy ovaries, and what benefit may reasonably be hoped for from such an operation, still greatly agitates the professional mind, and for the purpose of aiding in the solution of this problem, I report the following three cases, all of which were successful so far as the operation itself is concerned, but each of which presents peculiar features touching on the doubtful point referred to.

Case I. Dysmenorrhœa; Hystero-Neurosis Oöphorectomy; Recovery; Return of Mental Disturbance.— E. W. aged 39 years, widow, professional nurse. One child 10 years before, difficult labor, forceps. First menstruation in fourteenth year; since then regular in recurrence, lasting from three to seven days, but very irregular in amount, sometimes very profuse, at others scanty. Complains of severe, excruciating pain in the hypogastria and ovarian regions, sacrum, and down both legs, chiefly for about a week before, during, and a week after each menstrual period, but more or less constant. This pain is also aggravated by walking, and during defecation; says she has had these pains since her confinement, that they increased gradually, and that four years ago in the Dresden Hospital an operation was performed on her; she thinks the "neck of her womb was cut off." For a time there was less pain, but it soon increased again and is now as bad as ever, and renders life unendurable, so that she begs piteously to have some operation performed which shall rid her of her sufferings, which she herself attributes entirely to the menstrual function. She has become addicted to opium, taking 30 to 50 minims of Magendie a day. She entered Mt. Sinai Hospital, Dec. 9th, 1882, with the diagnosis sciatica; was treated for about two months in the medical wards without benefit, and as all her symptoms seemed to emanate from her pelvis, was transferred to my service.

Patient is well-nourished, but of pale, waxy complexion. Face anxious, expressive of suffering. She lies in bed all day and can hardly be induced to dress herself and move about. Physical examination shows absence of cervix, smooth with vaginal vault, uterus somewhat enlarged; ovaries indistinctly palpable, by vaginal finger or bimanual examination, on occount of thick adipose tissue in abdominal wall. Pressure over the ovarian regions, indeed over the whole hypogastric region, seems to cause intense pain. But there is no positive sign of organic disease of the ovaries or tubes, no infiltration of the cellular tissue, no evidence of previous cellulitis or peritonitis. The sufferings of the patient, therefore, as far as the result of a physical examination goes, do not depend on any appreciable pathological condition of her sexual organs, and have to be taken entirely on faith.

I was unwilling to accept her statements as sufficient indication for the removal of her ovaries, which was, of course, the only operative course to be pursued, and hence deferred my decision until the effect of other local treatment could be watched. This consisted in repeated blisters over the ovarian regions, hot injections, cauterization along the dorsal and lumbar spinal column, with the Pacquelin tip, bromides, hot injections, etc., but the pain complained of continued with no abatement, and at each visit the patient implored me to remove her ovaries, to the presence of which she ascribed her sufferings. Indeed, she went further than the ovaries alone, for she insisted on having the "womb" removed. She was so persistent in her entreaties, as to lead me to remark to the house staff that "she seemed to wish me to commit suicide on her," a wish I had no intention of gratifying. However, as her condition remained unchanged—grew worse if anything—I finally explained to her the danger of oöphorectomy, how she might die from it, and that I could not promise her a cure, even though she recovered from the operation itself—to all of which she replied by asking me to fix an early day for the operation. After carefully considering the matter, and deferring a decision from day to day, and after repeatedly explaining the grounds of my hesitation to her, and again at her urgent request, expressed in the presence of the house-staff, I at last agreed to give her the chance of the operation, and fixed a day immediately after the next period.

On March 2d, 1883, the operation was performed under the usual precautions, (carbolic spray in room, careful antisepsis). The ovaries were found without any difficulty, the right being free, the left slightly adherent; they were lifted up with the fingers, the pedicle, including the entire tube, transfixed, tied double, and seared off with the Pacquelin, and dropped. The abdominal wound was closed in the usual manner, the peritoneum being included in the silk sutures, the only difficulty being the passages of the needles from within outward, owing to the small size of the incision (2″) and the thickness of the abdominal walls. The ovaries were perfectly normal on microscopical examination; the microscope showed moderate interstitial hyperplasia. On the second day the temperature ran up to 103°, with great pain in the whole abdomen, no doubt due to some localized peritonitis. The ice-water coil was applied to the abdomen, and within twenty-four hours the temperature sank to normal, but the coil was continued for nearly a week, at the request of the patient, who expressed herself as much relieved by the cold. For the first three days the patient was so restless and moaned so incessantly, almost as though she were deranged, that ten minims of Magendie were given her every hour; and even this did not produce sleep, which was finally secured by $\frac{1}{100}$ grain of hyoscyamia, repeated every three hours, until six doses had been given. Once quieted, the morphine was gradually diminished, and at the end of two weeks it was discontinued entirely, sleep being produced by one or two doses of hyoscyamia at night. The sutures were removed on the 8th day, and union by first intention ascertained throughout. She left her bed on the 18th day, and was able to walk about the ward during the third week. For a couple of weeks the patient's physical and mental condition seemed wonderfully improved; she was cheerful, slept well, complained of no pain whatever, and evinced no desire for morphine. But gradually she began to get moody, morose, at times irritable, annoying the other patients by loud and violent talking, muttering to herself; it became impossible to quiet her by remonstrating with or scolding her, and she again demanded morphine, and could not be soothed without it. It was necessary to put her in a separate room, where she grew less and less tractable, and repeatedly threatened to commit suicide. Her look and manner assumed the peculiar wild expression seen in dementia; and finally, finding that we could do nothing with her, and not being provided with accommodations for insane patients, I communicated with her relatives, who removed her, with the avowed intention of complying with my advice to place her in an asylum. Whether they did so or not, I can not say, for I heard nothing from her until, some three months later, I chanced to see in a daily paper an item to the effect that a woman, corresponding in name and description to my patient, who the paper said had been subjected to an operation at Mt. Sinai Hospital, had committed suicide by illuminating gas in a small hotel in the lower part of the city. There could be no doubt of its being a case of suicide, as the woman had taken particular pains to prevent the escape of gas from her room by carefully stopping every chink in the door and windows with paper.

Now here was an instance of a capital operation performed on an indication drawn entirely from the patient's own statements, and proved by the result to have been erroneous. I was perfectly aware of this flaw in the indication, but felt satisfied that nothing else was to be done, and that therein, and in the apparent intense suffering of the patient and her ardent desire for the operation, lay my justification for acceding to her wishes. It is this mental psychical factor in these cases of dysmenorrhœa which renders it so difficult to decide whether the sufferings and symptoms of the patient are real and due to organic disease of the sexual organs, or are merely reflux derangements of the mental and nervous functions. And even when, after a careful consideration and observation of the case, the reflux nature of the symptoms seems settled, is it justifiable to expose a woman to the danger (diminishing though it may be with our improved methods of operation), of removing her ovaries; to the inconveniences (not to be under-valued if she is young, or married and sterile), of permanent sterility; and finally, to the chances of a failure to secure the relief for which the operation is done? Only additional extensive experience will lead us to a more satisfactory answer to this question, and in order that all may learn and profit, it is incumbent on those of us who do these operations, to report not only our successful cases, but also those in which the patient either dies or the desired result is not achieved.

So far as those cases are concerned, in which it appears not impossible from the history and manifestations that the mental functions themselves are at fault, irrespective of the sex or accompanying genital derangements, I should feel great hesitation in advising oöphorectomy, certainly until change of surroundings and proper mental régime had been ineffectually tried, and the psychical derangement had been shown to be at least coincident with menstruation, and even then, local treatment of the sexual organs should first be given a trial.

Case II.—Dysmenorrhœa; Partial Hemiplegia Due to Apparent Sclerosis of Spinal Cord; Hystero-Neurosis, Oöphorectomy; Recovery; Rapid Return of Power of Motion of Lower Extremities After Eight Years' Inaction. Complete Cure.

Miss C. C., twenty-six years of age, was placed under my care in 1880 by Dr. Allan McLane Hamilton. Her history, as written out for me by her mother, is the following: "Patient was always chlorotic, weak, had no appetite, slept badly. Menstruation began in 12th year: she suffered greatly at each period from local pain and headaches. In her 15th year these pains increased, and to them were added severe pain in the lower part of the back, so that in her 17th and 18th years she had grown so weak as to be unable to walk up and down-stairs. Every exertion increased the pain in her back and head to an almost unbearable degree. A sojourn of two years in France improved her somewhat, but on her return in 1874, all the symptoms increased again, and and in 1875 a severe pain in the left side of the abdomen came on, from which she suffered a great deal. She was then examined, and retroversion of the womb with a slight enlargement and falling of the left ovary were discovered. Hot sitz baths and nux vomica were prescribed. Three weeks after begining this treatment, on May 15th, 1876, she was taken with a slight cold; yet she spent the evening at a friend's, and even danced a few minutes. On the next day she had a bad sore throat, headache and vomited a great deal. It may be said that she never could walk after that cold; certainly never out of doors. She was sent to Sharon Springs, improved a little there, but subsequently lost the power of walking and could not even stand at all. At one time she was nearly dead through impossibility of retaining any food for many weeks. Dr. Allan McLane Hamilton was then called in and she improved greatly under his care. He considered the case to be one of chronic inflammation of the spinal cord. He had attended her for about eighteen months, when one day she suddenly stood up and walked a few steps, not well but very fast, dragging her left foot and leg, and unable to raise either foot. This state of things continued with fluctuations of slight improvement or drawback, but evident increase in monthly pains, back pains and pain in the left and even the right side, nausea, headache, until January 6th, 1884, when Dr. Mundé removed the ovaries."

When I first saw the patient in 1880, I found a slender, pale, emaciated girl, weighing less than one hundred pounds, reclining on a couch, which she exchanged at times for her bed or a rolling chair, creeping from one to the other. Examination showed virginal genitals, uterus retroverted in the second degree, rather immovable; the left ovary somewhat enlarged and retro-prolapsed, and very tender; the right not recognizable. Besides the inability to digest her food, the nausea and vomiting and the headache, the patient complained chiefly of the left ovarian pain, which was constant, but increased during the menstrual period. Dr. Hamilton informed me that her symptoms all pointed to the existence of chronic inflammation of the posterior columns of the spinal cord, which had been treated by all possible measures without success, and he had no hope that she would ever be any better in that respect. Neither was it supposed that the retroversion and the prolapsed ovary had anything to do with the spinal difficulty. This was the opinion of both Dr. Emmet and Dr. Thomas, who had examined her during the previous years. The question simply was whether local treatment could relieve her of the dysmenorrhœa and the ovaralgia, and possibly of the nausea and headaches which seemed to depend on the ovaritis. If she could be made easier in these respects all would have been done that could be expected. After a careful consideration of the case, I felt compelled to agree with Dr. Hamilton; but did not express myself very hopefully as to the result of local treatment. Remembering, however, Fothergill's theory of "Ovarian Dyspepsia," (see *Jour. Obst.* 1879), and being well aware of the reflex influence of utro-ovarian disease with gastric functions I thought it possible to give her some relief, and began treatment by painting the vaginal vault with tinct. iodine, packing the vagina with cotton, and blistering the left ovarian region. But this treatment rather aggravated the symptoms; only the blisters gave temporary relief. A pessary was worn for some time with no benefit, and so after a while I gave up local treatment, and confined myself, in conjunction with Dr. Hamilton, to administering placebos, calling on the patient only when sent for. At this time, the question of removal of the ovaries came up, but I advised against it as I feared that she had too little vitality left to stand the operation, and as, at the best, its result was doubtful. I was informed that Dr. Thomas had given the same opinion when asked several years previously. Nearly four years later, during which time the patient had remained in *statu quo*, never leaving her bed or couch, and barely recovering sufficiently from the pain, nausea and headaches of one menstrual period to enable her to stand the same symptoms during the next, I chanced to call on her during one of these attacks, and the question of oöphorectomy was again raised by her, and with so much earnestness that I agreed to consider the matter. There could be no doubt that she was doomed to drag on her miserable existence as she had done for the past eight years, until either death relieved her, or until after fifteen or more years of suffering the advent of the menopause gave hope of alleviation. That other treatment was useless seemed pretty well established, and only the experiment of removing the ovaries remained to be tried. But I insisted upon being understood that it was only an experiment, which might turn out badly, that is, fatally or of no benefit, and the most we could hope for from it was a cessation of the ovaralgia and the menstrual neuroses, therefore, comparative comfort, but no improvement in the means of locomotion. (A conversation with Dr. Hamilton confirmed this opinion; he had no doubt of the presence of organic disease of the cord). Finally, I asked for a consultation with an authority, and if he agreed with my view that oöphorectomy offered a chance for relief and was justifiable, I would undertake it. Accordingly Dr. Emmet saw the patient and agreed with my diagnosis and views as regards the operation. After some deliberation, the patient having been again thoroughly informed of all the risks and doubts, she decided to have it done, and the 6th of January, 1884, a date shortly after her next period, was fixed for the operation. The patient showed remarkable pluck, took ether well, (the Clover inhaler being used, and only about four ounces of ether required), and the operation was performed under the usual antiseptic precautions, (boracic acid spray over abdomen of patient, corrosive sublimate solution 1 to 2,000 for sponges, hands and ligatures), without any difficulty whatever. The ovaries were not adherent, and were easily reached by elevating the fundus uteri with a repositer against the abdominal wall; the fundus then formed a convenient rest to cut down on during the abdominal incision. The pedicles were transfixed, tied doubly, seared off and dropped. The peritoneum was inclosed in the abdominal sutures, which were of silk. Antiseptic dressing was applied. Recovery was almost uninterrupted, the temperature only once, on the fifth day, rose to 101°, and then no doubt caused by a small mural abscess which opened along one of the upper stitches. The sutures were removed on the ninth day and complete union found. Examination of the ovaries showed nothing but slight inflammatory enlargement of the left. The progress of the case is thus described by her mother: "Six days after the operation the patient discovered that she could move the toes of her left foot, and four days later that she could lift her left leg and bend her left knee, things she had been utterly unable to do for nearly eight years. On January 24th she could sit in a chair for half an hour. On the 30th, she stood for the first time, and with help, walked a few steps, raising both feet and using both equally well. On February 20th, she walked entirely alone with perfectly natural motion. On April 7th she was able to walk half a block in Central Park. On the 14th she drove to Dr. Mundé's office, (the first visit, by the way, which she had ever made me), and was able to walk up and down the stoop. Since then she has several times walked up one flight of stairs.

Now, first part of May, she can go about the house, and upstairs, ride in a carriage, which, before the operation, prostrated her and gave her terrible pain and nausea. Her back is far less sensitive than it was, the local pains have disappeared, and she is altogether in a different condition of health, no longer a confirmed invalid, but a convalescent, improving daily and allowed to hope for a complete cure.

I may add to this testimony of the mother of the patient, that the nausea has almost entirely disappeared; she still has an occasional migraine, but much less severe: she has not menstruated and has had no ovarian pain. The uterus has not been interfered with and is still retroverted. Her first attempt at walking was precisely like that of a child first learning to walk. The most curious feature was the manner in which she used her left leg, as though she had never had such a member before. Instead of dragging it behind her like an inanimate object, she lifted, advanced and set it down like the other, but in a hesitating sort of way.

When I saw her last, about the middle of June, before her departure for the country, she could go up and down stairs easily, hop, dance, and apparently had perfect control of both legs.

In this case but little was expected from the operation, perhaps nothing but a relief from pelvic pain and nausea, and the result far exceeded the anticipations. What the relation was between the left ovary and the left leg I do not pretend to say; whether it was that of a reflex neurosis, or whether the prolapsed ovary pressed on the nerves controlling the mobility of the left leg, I do not know. The *post hoc* is certain, the *propter hoc* we must either assume or leave in doubt. Whether, also, the diagnosis of organic disease of the spinal cord was an error, I will not attempt to discuss. Certainly, there is no sign of such disease now.

If such a termination could have been forseen, the removal of the ovaries several years before would have saved the patient much suffering and anxiety.—*New England Medical Monthly.*

The Essentials for the Safe Administration of Ether.

Dr. David W. Cheever, in an article on the administration of ether, in the *Boston Med. and Surg. Jour.*, gives, in conclusion, the following essentials for its safe use:

An empty stomach.
A loose neck.
A free abdomen; no corsets or skirt bands.
Removal of artificial teeth.
An easy, semi-recumbent position.
A sponge wrapped in towels for the ether.
A gag, and forceps for the tongue.

When stertor occurs, the patient should be tipped forward, the cheek opened with two fingers, the tongue drawn out, the fauces swabbed. To *insure* safety, the surgeon should hear every respiration of the patient.

Anæsthesia from sulphuric ether is of two forms:

1. Primary anæsthesia, which is a moment of confusion coming on after a very few inspirations. At this moment a felon can be opened without pain, and the patient wake at once.

2. Comatose anæsthesia, for prolonged operations. Ether *may* be given almost indefinitely. To relieve the hopeless

agony of tetanus, I have had it administered for twenty-four hours.

If you would avoid asphyxia, nausea, and headache, and be *safe*, use only the best and the purest anhydrous sulphuric ether.

A Case of Cæsarean Operation.

BY GEORGE T. HARRISON, M. D.,
Assistant Surgeon to the Woman's Hospital.

Read before the N. Y. Obstetrical Society.

THE specimen which I here exhibit is a uterus removed after death from a woman who had a contracted pelvis, in consequence of which I found it necessary to perform the Cæsarean section. The history of the case briefly is as follows:

The patient was thirty-one years of age, married, a primipara. During early childhood she suffered from rickets. She was unable to walk uutil the fourth year. After she recovered from this disease her health became excellent. When I saw her for the first time, on the 6th of February, she was suffering from a slight bronchitis. Otherwise she enjoyed good health. During the whole period of pregnancy she had suffered comparatively few annoyances, had had a good appetite, and had slept well. On the 22d of March the patient sent for me, being alarmed because there were no signs of commencing labor, according to her count she having reached full term. An examination *per vaginam* showed that the head was above the superior strait, and I then recognized the fact that there was narrowing, and supposed it to be a case of flattened pelvis. At that time I did not know that she had had rickets.

Reckoning from the last menstruation, I told her that labor was likely to come on about the 25th of March. It was not, however, until the night of the 4th of April that labor pains began. On the morning of the 5th I found the pains recurring at intervals of twenty minutes, but no apparent effect had been produced on the cervix. April 5th, 6th and 7th the first stage dragged along slowly. Hypodermic injections of morphine were administered several times, to give the patient an opportunity to procure rest. On the afternoon of the 7th I thought it was time to interfere, and sent for Dr. A. R. Robinson, who appointed 9

P. M. as the hour at which he could meet me. I asked Dr. R. C. M. Page to be present at the same time. The patient was put under ether, and an attempt was made, after manual dilatation of the os (the os being dilatable), to apply the forceps. This was soon abandoned, as it was found impossible to bring the head down by its use. I then tried version, but, after reaching the child's legs *in utero*, my arm was grasped so tightly by the sphincter vaginæ that my hand did not retain sufficient power to seize the foot, and I had to give place to Dr. Robinson, who succeeded in seizing a foot and bringing it down. After many futile efforts at version, we decided that it was impossible to extract the child in this way.

The only alternative open to us now was laparo-hysterotomy. At my request the husband went for Dr. Gillette, who came at once and gave me the benefit of his skill and experience. Dr. Page giving ether, with the assistance of Dr. Robinson and Dr. Gillette, at about 1 P. M. I proceeded to the performance of this operation. The child proved to be a very large one. Its weight subsequently was found to be eleven pounds and three quarters. The edges of the wound in the uterus were brought together by a continuous suture of silk. The patient reacted well from the operation. The next day her condition was favorable. The third day, however, peritonitis showed itself, and, on the evening of April 10th, at 7:30, she expired.

Autopsy, April 11th, by Dr. B. A. Lindsey.—Extensive peritonitis. Union along the whole line of the abdominal wound. The wound in the uterus also united. Accurate measurement showed the conjugate diameter to have a length of two inches and three quarters. The transverse diameter was four inches and a quarter. It was, therefore, a rhachitic flattened, generally contracted pelvis.—*N. Y. Med. Journal.*

Micro-Organisms.

One of the most important problems in respect to pathogenic micro-organisms is whether, under any conditions, these can be developed from organisms having no such specific quality. The statement has been that such is occasionally the case, and the instance of the bacillus anthracis is quoted as affording proof of this. The importance of the matter is enhanced by the fact of attenuation of the virus, which has led to the adoption of measures of preventive inoculation. Again, the question was raised by Dr. Koch in reference to the cholera bacillus, as to whether, under any conditions, this could have been transformed from a harmless variety. The latest contribution to the subject is that of Dr. Klein, published a few weeks since in an Interim Report to the Medical Officer of the Local Government Board, and the results of his researches may be summed up in the statement that there is no sufficient ground for the belief that septic can be transformed into pathogenic organisms. At present he says it is a debated question whether an organism which under ordinary conditions is only to be met with in association with putrefaction, can under extraordinary conditions become endowed with the power of growing and multiplying in the body of a living animal so as to induce therein an infective disease. If the converse can be proved—viz., that a micro-organism known to be pathogenic can be made to lose its property, ground might be given for that conclusion. The instance of the bacillus anthracis and its attenuation is shown by Dr. Klein to be of less significance than is supposed, for he finds that when new cultures are made the bacilli retain their full virulence. At the same time the fact that these bacilli do apparently lose their pathogenic activity is undoubted, and it is explained by Dr. Klein by the assumption that such a change is not an intrinsic one, but in all probability due to the bacilli appropriating, under certain conditions, some chemical substance or ferment which produces a weakening effect upon them; and that the immunity conferred upon some animals depends upon the restraining influence of this substance on the activity of the bacilli. He quotes in support of this the attenuation produced by the addition of carbolic acid or bichromate of potash to the nutrient medium in which bacilli are cultivated. The inhibiting material, probably of various kinds and nature, does not operate in preventing spore-formation or in checking the growth of the bacillus. Nor does it modify the virulence of subsequent inoculations with other fresh bacilli, so that on this view protective inoculation with "attenuated virus" is reduced to a vanishing point.

Dealing next with the three alleged examples of the conversion of a putrefactive or septic organism into a specific or pathogenic one—viz.: Buchner's view of the transformation of the hay bacillus into bacillus anthracis, the assumption of pathogenic properties by the bacillus subtilis in jequirity infusion, and of aspergillus when grown in neutral and alkaline material—Dr. Klein in the first place points out that the hay bacillus differs morphologically from the anthrax bacillus, and also in its mode of growth and action in culture fluids. He deals with Buchner's arguments in turn, and proves that Koch was right in rejecting them, and that the alarming doctrine that the hay bacillus is capable of being transformed into the pathogenic anthrax bacillus is chimerical. Each of these organisms is distinct from the other during its whole existence, and the only explanation of the error that has been made in arriving at a different conclusion is that of accidental contamination. Dr. Klein gives instances of the remarkable way in which such contamination can take place without the experimenter's knowledge, and amongst them he quotes the erroneous conclusion respecting the artificial production of tubercle in rodents by non-tubercular substances, which were quite upset when sufficient precautions were taken to avoid such contamination. Nothing illustrates better the extreme care that is required of the experimenter in his researches on these microscopic and ubiquitous organisms; and how a quite unintentional oversight may vitiate the whole result and lead to the formation of a quite erroneous conclusion. Then as to the jequirity bacillus, concerning which so much has lately been written, owing to the practical use to which this substance has been applied in exciting ophthalmia, Dr. Klein shows that, *per se*, this organism (the bacillus subtilis) is as powerless to create an infective ophthalmia as Buchner's hay bacillus is to cause anthrax. For by taking suitable precautions he has obtained a perfectly sterile infusion of the jequirity seed, and has shown that this possesses the property in question. Further, he finds that after a very short exposure to the air this infusion contains a large quantity of bacilli derived from spores floating in the air, and that boiling, which deprives jequirity of its poisonous action, does not destroy the spores. To Dr. Sattler's statement that cultures of the bacillus can excite ophthalmia, Dr. Klein urges that this must have been due to contamination with some of the original jequirity infusion, for by isolating the bacillus and cultivating it through two generations he was unable to produce any poisonous effects. Lastly, as to the aspergillus, which Grawitz showed to have infective properties when injected into the blood, he concurs with Koch and Gaffky in the belief that certain species of this fungus possess pathogenic properties *ab initio*, whereas others are non-pathogenic, and can never acquire such properties. Similar explanations hold for the forms of septicæmia and pyæmia produced in mice and other animals by injection of putrid organic substances—namely, that such infection is due to organisms that are pathogenic throughout, but capable, like the anthrax bacillus and the micrococcus of erysipelas, of growing outside the animal body. A final section of the report details the negative results (*quoad* pathogenic action) obtained by inoculations with various forms of non-pathogenic micrococci and bacteria. In these experiments the singular result was found that inoculations of bacillus subtilis in mice were followed by a fatal pyæmia; which, however, on examination was proved to be due to the presence of a micrococcus, that obviously could not have been derived from the bacillus, but must have been introduced accidently when the latter was inoculated. As a contribution to a 'very vexed question, and as supporting very strongly the notion of specificity under prevailing conditions, these researches of Dr. Klein deserve careful attention.—*Lancet, of London*, August 30th.

Microscopy.

Staining.

BY J. O. STILLSON, A. M., M. D.

DIFFERENTIAL staining or coloring of tissue is the process of treatment by means of which the contours of certain elements are rendered visible, or if already so, are brought out into bolder prominence through the media of certain coloring matters. These coloring fluids may have affinities for one kind of tissue and act with indifference upon other elements near by, or they may act chemically, and thus a section of tissue exposed to several successive staining media will take on a variety of colors, according as its various morphological elements may be affected chemically or otherwise.

These dyes are of three kinds principally; first, such as impart their own color to the tissue; second, those which, while of one color themselves, impart some other color by combining chemically with elements, either in the tissues or in which the tissues may have been soaked, and third, such as are themselves colorless, yet chemically produce a secondary color by exposure to heat, light or some other agent, usually termed a developer.

Of the first, we have a fair example in carmine and the various aniline dyes. Of the second class we have a good example in chloride of gold, which, though itself yellow or straw colored, yet stains tissue a violet color, or in hyperosmic acid, which stains nerves alone black, leaving muscular tissue unchanged; and of the third class we have solutions of nitrate of silver, which, though itself colorless, imparts a dark brown or black tint to tissue which has been soaked in it and afterward exposed to light.

CHLORIDE OF GOLD.

℞	Pure gold (dentists' foil), . .	grs. vi.
	Nitric acid, pure, . . .	ʒss.
	Hydrochloric acid, . . .	ʒiss.

Mix: dissolve gold, evaporated in water both to one-third bulk. Crystals will appear on cooling.

Use a one per cent. or two per cent. solution in distilled water. Made from either the crystals or concentrated acid solution. It is of a light yellow or straw color, but stains violet the following structures: Nerve cells, connective tissue, corpuscles, tendon cells and cartilage cells.

PICRO-CARMINATE OF AMMONIA OR PICRO-CARMINE.

℞	Picro-carmine crystals, . .	2 parts.
	Distilled water, . . .	100 parts.

Mix: ft. sol.

Useful in double staining physiological or pathological sections. Nuclei and granular matter of cells fix upon the carmine and are stained red, while the muscular and connective tissue are colored yellow by the picric acid. Sections should be transferred to methylated spirit, which fixes the colors and renders the whole section brighter and easier of re-solution.

PICRO-CARMINE AND IODINE.

℞	Iodine green, . . .	1 part.
	Water, ...	100 parts.

Mix: Makes a fast green.

Sections stained with picro-carmine may be transferred to this mixture, and carefully watched, as they take on an additional color. In this way, intestines, gland tissue, lymphatics, muscle, cartilage and even bone may be beautifully differentiated.

EOSINE RED AND METHYL-ANILINE GREEN.

℞	Eosine red,	grs. iv.
	Distilled water,	℥i.

Mix: Make a solution.

℞	Methyl-aniline green,	grs. iv.
	Alcohol,	ʒii.
	Water,	ʒvi.

Useful in double staining blood corpuscles of frog, fish, fowl and such others as are nucleated. Place a drop of blood on slide and drag the edge of another slide over it, so as to spread the corpuscles out in a single layer. Drop one drop of eosine solution on the layer of dried blood. As soon as the water of coloring solution evaporates, wash in clear water till a pinkish hue remains; now drop on the aniline green solution and watch carefully under microscope (¼ in objective) till the nuclei become green, wash again, dry over spirit lamp, mount in balsam. With some skill and patience beautiful results can be obtained with the above solutions.—*Ind. Med. Journal.*

American Society of Microscopists.

The following Report of the Proceedings of the American Society of Microscopists we take from the *St. Louis Med. and Surg. Jour.*

THE Seventh Annual Meeting of the American Society of Microscopists, held at Rochester, N. Y., on the 19th of August and three consecutive days, was, in every respect, a complete success. The arrangements for the reception and entertainment of the visiting members devolved upon committees of the local Academy of Sciences, more especially upon the section of microscopy, and were on an elaborate and most hospitable scale. That the labor and attention to detail is no trifling one, all who have ever attended a similar convocation will agree. Especially is this the case in a city where there is a comparatively limited choice of hotels and places of meeting suitable to such purposes. Under such circumstances the general verdict of all who were in attendance is, that the city of Rochester has every reason to be proud of her Academy of Sciences and her generous citizens who contributed so liberally to the funds necessary for such an occasion.

As to the *personnel* of the assemblage, while the medical profession, as might be expected, largely predominated, there were present men eminent in every walk of life. The lion of the occasion was, of course, the British Lion, Dr. Dollinger, the President of the Royal Microscopical Society. This gentleman, so well known to all students of biology for his varied and valuable contributions in that department of science, was very disappointing to those who expected to see in him the typical Englishman. Thin and spare, rather below the medium height, with black eyes, and hair that was once of the same color, but which is now plentifully streaked with gray, a face cleanly shaven, except directly under the chin, and of clerical aspect, he would be taken anywhere in the West or Southwest for a backwoods Methodist or Baptist preacher. His mouth is large and expressive, his chin square and jaws thin, with high cheek bones. His age may be anywhere from fifty-two or three to sixty. Quiet and unassuming in manner, he charmed everyone with whom he came in contact. No personal introduction was necessary with him; the white badge of membership to the American Society seeming to be an all-sufficient passport to his good graces. With all who wore it he chatted pleasantly and informally wherever he met them, in the corridors of the hotels, on the streets or in the hall of meeting. It is safe to say that he carries back to England with him the good wishes and friendly feeling of every member of the American Association. He seemed to be very proud of the honorary membership conferred upon him, and wore the badge constantly while in Rochester. His wife is a pleasant-faced, motherly English woman, stout of habit and resembling somewhat the more recent pictures of Queen Victoria.

Steps were taken at the meeting looking to the erection of suitable monuments over the graves of Tolles and Spencer. Every fortunate possessor of one of their superb objectives will be ready to contribute liberally to the movement.

Amongst the more recent appliances in microscopy shown at the meeting, in working session, was a section cutter of German pattern; it was exhibited by Dr. Dunham, of Chicago, and it is claimed by him that sections may be cut with it of perfect uniformity and as thin as one twenty-five-hundredth part of an inch. While this may be true, and the instrument is undoubtedly a good one, there are many reasons why it can never come into general use as a microtome. It is too costly, too cumbersome and too complicated, and will have to be cheapened and simplified very materially before it can be considered as a practical microtome. It has as much machinery as a steam engine, and when rigged for work looks more like a reaper and mower than an instrument for cutting minute sections. As complicated as it is, however, I think it would be better than the microtome proposed in open session by Prof. Rogers, of Cambridge. He wishes to apply the principle with which he governs and manages his great equatorial and other telescopes, to the section cutter. He would have a sort of combination of electrical machine, microscope, trip hammer and guillotine or planing machine, if I understood him aright. At any rate, practical men, like myself, who listened to his descriptions of an ideal section cutter, shook their heads and "smole a smile" at each other while he was talking.

MORPHOLOGY OF THE BLOOD IN RHEUMATISM.

About the only paper read at the recent meeting, of direct interest and importance to the medical profession, was one by Dr. Ephraim Cutter, of New York, on the "Morphology of the Blood in Rheumatism." Owing to the absence of the author it was read in abstract by the Secretary. The paper, which is a long one and profusely illustrated, will not appear in full until published in the Annual Proceedings of the Society, when we hope to reproduce the more practical and valuable parts of it. It deals, however, with certain microscopical appearances claimed by the author to be found always in the blood of rheumatic patients and sometimes in the blood of patients who have not as yet experienced any rheumatic symytoms. These appearances consist of strings of fibrine, crystals of cystine, of uric and hypuric acid, the phosphates, etc. After speculation as to origin, the paper passes to a consideration of the method of morbid action, which, if I understood it aright, is claimed to be almost entirely mechanical. These strings of fibrine, crystals etc., clog up the capillaries and cause local tumefaction, inflammation and pain. Sometimes they clog up a larger or more important vessel, when death is the result. The author has no doubt that many cases of sudden death are due to this cause, though unsuspected. He cites the case of his own father, the outlines of whose autopsy are given by him and commented on. The microscope is the only instrument of any value in detecting this condition of the blood, the rheumatic diathesis, and Dr. Cutter gives directions for the examination of the blood with the view of detecting the condition, should it exist. He claims that it does exist, very frequently, long before any external or algesic symptoms have made his condition known to the patient. He compares the status of a patient in this condition to that of a loaded gun, or a charged mine. The destroying agent, the powder or the dynamite, has been securely packed away in its cell, the cap is put on or the fuse is laid and it only requires the pulling of a trigger or touch of a match to produce the explosion. So these crystals, these strings of fibrine and other morbid matter, have been produced or introduced into the vascular system, and for some reason, as yet not explained, they lie dormant. By chance, perhaps, they fail to lodge in the capillaries, and remain coursing with the blood corpuscles harmlessly through the system. But let the patient commit some excess, get caught in a storm, "catch cold" and sometimes when the even tenor of existence is apparently unbroken, then comes the explosion. Figuratively speaking the mine has been sprung, and inflammatory rheumatism is the result. The paper attracted considerable attention from the physicians present, and it is a matter of regret that it can not now be published, owing to the reasons already given.

Dr. Formad, of Philadelphia, sums up the question of bacillus tuberculi as follows:

1. The bacillus of Koch is a valuable diagnostic sign of tubercular disease.
2. Nothing is proved by its discovery for the etiology of tuberculosis.
3. The too ready acceptance of the bacillus doctrine is not justifiable and is likely to do more harm than good.
4. Neither phthisis nor any other form of tuberculosis is contagious.

After a comparative trial of twenty aniline colors, for showing bacillus tuberculi, Fränkel concludes, with other investigators, that the best are, undoubtedly, methyl-violet and fuchsin. Both of these are hydrochloric acid combinations, and both stain animal fibres more easily than vegetable. As to the time required for staining, ten minutes are necessary at the temperature of the room, although a much shorter time suffices in the warm box, while Rindfleisch has also shown that by warming the fluid the staining may be made instantaneously.

With the added fluids, Fränkel found the aniline water, as first suggested by Ehrlich, to give the best results, although equally good results were obtained with toludin water, an analogous substance which is always found to accompany the commercial aniline as an impurity. A durable fluid is composed of 93 c. c. of water, 3 c. c. of aniline oil, and 6 c. c. of alcohol. In this aniline water the coloring matters may be dissolved, but it is better to have on hand alcoholic solutions of fuchsin and methyl-violet, and, before using, to add, by means of a dropper, as Ehrlich originally suggested, as much of the solution of coloring matter as will produce a decided opalescence in the fluid. Five cubic centimeters of aniline water are heated to boiling in a test-tube, poured into a watch-glass, and the concentrated solution of coloring matter added. Upon this the covering-glass, on which the sputum is smeared, and dried by passing it a few times over the flame of an alcohol lamp, is floated for from two to five minutes.

In order to demonstrate the bacillus more distinctly, acids, alcohol, and watery solutions of other aniline colors are used, either to decolorize the other elements of the sputum, cells, nuclei, other fungi, or foreign substances, or so to stain them by these colors as to put them in contrast with the stained bacilli. For this purpose, Ehrlich uses nitric acid diluted three times; Petri, glacial-acetic acid; Rindfleisch, feebly acidulated alcohol; and Koch, in the beginning, vesuvin-solution.

Fränkel regards it as especially important to re-stain the decolorized preparation, thereby eliminating all possibility of a mistake. For this purpose he has recently used a mixture of 50 parts of alcohol, 30 of water, and 20 of nitric acid, which is saturated with ethyline blue, and then filtered. Into some of this fluid, the preparation is carried directly from the first color solution, and in this way the decolorization and second staining are at once accomplished, an immersion of one minute sufficing. The sputum on the cover-glass is then washed in water or in 50 per cent. of alcohol acidulated with one per cent. of acetic acid, and well dried by first compressing between filtering paper and then quickly passing through a flame. In this way, says Fränkel, a preparation can be completely made and doubly stained in four minutes.

As to the use of an immersion system and Abbe's illuminator, Fränkel says that much time is saved by them, but that with a good Hartnack No. 7, or any corresponding power, and ordinary illumination, the bacilli are easily recognized.

Gleanings.

TREATMENT OF NIGHTSWEATS OF PHTHISIS.—Dr. J. R. Forrest states that no internal remedies have the power of checking perspiration until the fever has subsided and the patient is exhausted. The following is a most efficacious lotion:

Sulphate of zinc, ...	iv. gr.
Tincture of belladonnæ, . .	j drachm.
Water, ...	j ounce.

The body to be sponged with the lotion at bedtime. It has proved serviceable in cases both of the incipient and advanced disease, the excessive sweating being often quite restrained after two nights' sponging. Quinlan suggests a trial of the hypodermic injection of atropine sulphate in doses ranging from $\frac{1}{100}$ to $\frac{1}{50}$ of a grain. The solution is best made with the laurel water of the Pharmacopœia, which completely dulls the local pain of the needle. It is well to begin with the smaller dose, for the larger one frequently causes dryness of the throat and temporary interference with vision. Some patients have required doses as large as $\frac{1}{30}$ grain. The great merit of the treatment is that it does not interfere with the stomach, and if the mullen leaf, boiled in milk, be used to check the cough or phthisical diarrhœa, should they exist, the stomach is left free for nutritive purposes—an unmixed blessing to phthisical sufferers, whose stomachs are frequently hardly able for that office. Dr. E. Prideaux confirms Quinlan's experience, and usually gives the drug in pill form, beginning with $\frac{1}{40}$ grain for an adult and $\frac{1}{80}$ for a child. It loses effect from lengthened exhibition. In the case of a patient who took it nightly for two years he increased the dose, after a long period, to $\frac{1}{30}$, and ultimately to $\frac{1}{25}$ grain. The formulæ are:

Sulphate of atropine, . .	$\frac{1}{40}$ of a grain.
Hydrate of morphine, . .	$\frac{1}{4}$ of a grain.
Capsicum, ...	1 grain.
Aloes pill with myrrh, . .	3 grains.

But in cases where a tendency to diarrhœa exists, substitute oxide of zinc, three grains, for the aloes pill with myrrh.—*Lancet.*

New Treatment of Psoriasis.—Dr. H. B. Fay, of Washington, sends us the following translation: Dr. Grellety (de Vichy), in the *Rev. Med. de Toulouse*, of the 15th June, 1884, after speaking of the disadvantages of other drugs used in psoriasis, thus writes concerning the value of chrysophanic acid, as used in the Hospital of Saint Louis.

The irritant properties of the acid can fortunately be prevented by making a mixture to which he gives the name "traumaticine." It is simply a 10 per cent. solution of gutta-percha in chloroform, which forms a protective coating much more pliant than collodion.

The affected part is first washed with soap and water. Then immediately with a brush, a deep yellow solution in the proportion of 10 grammes of chrysophanic acid to 80 grammes of chloroform is applied. Evaporation will at once take place, and then the protective covering of "traumaticine" should be applied as a second coating.

When pressed for time the two solutions can be mixed, but this is not so advantageous as the other plan. It suffices to continue the applications two or three days. The part to which the mixture is applied becomes more and more white in color, during the space of three to four weeks, sometimes even much sooner. This is the general way in which the curative effect shows itself. It may also be seen in an erythema, encircling the layer of psoriasis, and indicating a speedy cure.

In this treatment the patient can go about his daily occupations. The preparation does not diffuse any bad odor, nor does it stick to the clothes. And when we add to these advantages the fact of its very easy and simple application, its equal value in any variety of psoriasis (there being no internal medication) and its undoubted efficacy, practitioners will be glad to avail themselves of it.

Teeth in Inherited Syphilis.—A. Fournier defines a syphilitic tooth as one whose development has been arrested in the intra-follicular state by syphilis. The results are arranged under four heads (*Boston Medical and Surgical Journal*) Dental Erosions, Microdontism, Dental Amorphism, Vulnerability. Dental erosions are of many kinds. They consist of a more or less grooved or pitted condition of the enamel. The most important from a diagnostic point of view is the curved border of the incisors, to which the name of Hutchinson is attached. Fournier does not feel quite sure that other diseases may not cause this. (Magitot, in a paper read before the last International Medical Congress, stated that these grooves were caused by eclampsia). The other erosions are not of much diagnostic value, as many other diseases may produce them.

Microdontism.—This is a dimunition in the size of the teeth. It is never a characteristic of the entire denture, and is usually confined to a single tooth standing among well-developed neighbors.

Dental Amorphism.—This shows itself in several ways: (1.) Some tooth, a canine for example, takes the form of an incisor. (2.) Additional cusps may appear; the first molar often has a well-developed cusp on the side. (3.) The incisors take the form of ax blades, the crown being much too large for the necks. (4.) One or more teeth lose their characteristic form, and appear as irregular masses of enamel and dentine.

Vulnerability.—The statements which the writer makes here are too vague to be of any diagnostic value.—*Weekly Medical Review.*

ALOES IN PREGNANCY.—Aloes is very commonly given to pregnant women in this country; hence the following letter from Dr. William J. Mackie to the *British Medical Journal* will be of much interest. He says: "In the *British Medical Journal*, of January 5, page 41, is a letter from Dr. Walford, advocating more freedom in the administration of aloes in pregnancy and suspected pregnancy. While admitting that the general fear of bad effects in pregnant women from moderate doses is, to some extent, excessive, yet I may say on behalf of those who observe considerable caution in its employment in such cases, that I knew a lady (now dead) who took aloetic pills, on the advice of an injudicious friend, to relieve the constipation of pregnancy; and the first dose producing no effect, took a second dose the following night, with the result of inducing premature confinement; she had no tendency, either before or in subsequent pregnancies to this termination. The dose of aloes was no doubt large, through unduly rapid administration; its effects, however, can not be accounted for by general violent disturbance, but there is every reason to believe that they depended on the oxytocic properties of the drug. As we find aloes one of our most useful medicines in certain cases of piles, so I have no doubt it may be carefully administered in some of the disturbances of health dependent on or associated with pregnancy, with good results; but I can not think that the widespread caution observed by medical men in the employment of aloes during the period of gestation is based upon tradition and prejudice alone."

MASSAGE IN THE TREATMENT OF STRICTURE OF THE URETHRA.—The difficulty of passing a sound in stricture of the urethra following gonorrhœa depends, in the majority of cases, not so much upon the simple narrowing of the urethra itself as upon proliferation of the connective tissue in the surrounding parts. This hyperplasia of the connective tissue occurs in irregular patches about the urethra in such a way as to render the canal tortuous, thus increasing the difficulty of passing an instrument to the bladder. Dr. Geza V. Antal relates a number of cases (*Centralblatt fur Chirurgie*), in which he succeeded in inducing absorption of this hyperplasia by massage. The duration of each sitting was from eight to ten minutes, and the massage was repeated daily. Massage of the pendulous portion of the urethra presents no difficulties, but that of the membranous and prostatic portions is possible only through the rectum. Internal massage by means of the repeated introduction and withdrawal of a sound, as recommended by Bardinet, does not commend itself to the author. It is only possible in those cases in which the stricture is already permeable, while V. Antal's method is of especial value precisely in those cases in which the urethra will not admit of the passage of a bougie. Further than this, internal massage acts only upon the thin layer of tissue immediately surrounding the urethra, while the external method causes the entire hyperplasia to disappear. The author thinks that in many cases massage will be used in preference to urethrotomy.—*Med. Record.*

THE CONVERSION OF MALIGNANT TUMORS INTO INNOCENT GROWTHS.—Prof. V. Nussbaum, in a clinical lecture recently delivered in Munich (*Wien. Med. Ziet.*), expressed the belief that he had discovered a procedure for the positive cure of cancer by restraining the proliferation of the tissue elements of the disease. It appears to him that a total interruption of all peripheral sources of nutrition is the means best adapted to secure this result. He accomplishes this object by the use of the thermo-cautery, with which instrument a deep channel is made quite around the malignant growth, thus cutting off entirely the supply of blood and other nutritive fluids from the surrounding tissues. The small vessels which ascend into the tumor from the parts beneath are sufficient to preserve its vitality, so that gangrene does not occur. He thinks the thermo-cautery far preferable to the ligature, and that it possesses many advantages over the knife. He regards the hot iron and the various chemical caustics worthy of more extensive employment in the domain of malignant growths than they have ever enjoyed. Prof. Nussbaum doubts not that this circumscribing a cancerous growth, thus cutting off every channel of peripheral nutrition, has a brillant future, especially in those desperate cases in which death is imminent from hæmorrhage. In his experience, this method of cutting off the peripheral blood supply has offered such astonishing results that he recommends this procedure to the attention and practice of all those having occasion to treat a case adapted to its employment. —*Birmingham Medical Review.*

LOCALIZED SWEATING IN LOCOMOTOR ATAXIA.—Besides such phenomena as the altered conditions of the pupils, the gastric, intestinal, and vesical crises, the permanent acceleration of the pulse which has sometimes been observed, the alterations in the secretions of the alimentary canal, the cutaneous ecchymoses and eruptions, and the affections of the nails and joints, which point to an affection of the sympathetic nervous system in locomotor ataxy, we have now added alterations in the functions of the sweat-glands. In the *Revue de Médicine* (*Med. Times*), M. M. Raymond and Artaud describe the case of a man, aged 46, who was the subject of ataxy, and who presented a well-marked sweating confined to the right side of his face after each meal. This came on in from ten minutes to a quarter of an hour after the meal, and was not associated with any change in the pupil; the sweating occupied the corresponding side of the head and neck, extending to the shoulder. There was no affection of smell or taste, but the patient said that there was increased flow of saliva on the affected side during the sweating. The injection of pilocarpine did not seem to cause more sweating on one side of the face than the other. The authors mention that they have already recorded two cases in which the sympathetic ganglia were found to be affected *post-mortem*, and they allude to Pierret's view, that the central region of the sympathetic lies in the posterior vesicular columns and tractus intermedio-lateralis of Clarke, a region which is very commonly found to be sclerosed in cases of locomotor ataxy.

EXOPHTHALMIC GOITRE.—In the *Ophthalmic Review* Dr. James Russell contributes a case of Graves' Disease presenting some features of interest (*Med. Times*). The patient was a girl, aged 16 years, who presented decided exophthalmos on the left side only.

The lids of the right eye were retracted, producing the well-known staring appearance. In the neck there was a very small goitre, alike on the two sides. The mother said that at first the two eyes were equally prominent, and that after a time the right eye went down; though it did not regain its natural appearance, the goitre had varied but very little since it was first noticed. The patient was said to have suffered from palpitation, but made no complaint of this whilst under observation. The pulse was repeatedly examined, and was seldom above 100; it was generally under 90, and several times was less than 80. In a note appended after the paper was written, Dr. Russell states that on subsequent examinations of the pulse the average frequency of the beats had been much greater, being above 110 on a majority of occasions of examination. With this there had recurred a certain amount of exophthalmos of the right eye, though not to the same degree as in the other eye. This case seems to confirm a suggestion made by Dr. Fitzgerald in the same journal, that when the cardiac symptoms are absent the other symptoms should preponderate on the left side.

THE TREATMENT OF SCROFULOUS BUBOES.—Dr. Lhuillier ("*These de Paris;*" "*Bull. Gen. de Therap.*") treats of a variety of inguinal bubo which occurs in scrofulous persons between eighteen and thirty-eight years of age, and appears to result most frequently from excesses in walking or in venery, which cause engorgement of the inguinal glands and favor the localization of scrofulous disease in them, often quite independently of any other scrofulous manifestation. Syphilis also favors the occurrence, and it is then termed syphilo-strumous adenitis (*adenite syphilo-strumeuse*). Strumous adenitis calls for a general anti-scrofulous treatment, such as cod-liver oil, phosphate of lime, wine of cinchona, and especially preparations of iodine in small doses extending over a long period. During the stage of induration, local treatment is apt to prove fruitless, although applications of tincture of iodine may do a little good; when fluctuation is evident, however, there should be no hesitation, but the abscess must be opened freely, antiseptically, and with Paquelin's cautery, if practicable, and an effort made to destroy the wall. If the patient declines to submit to the latter procedure, the cavity may be dressed with tincture of iodine or with iodoform. In the syphilo-strumous form the treatment is the same, but softening may be hastened by the use of mercurial plasters.—*N. Y. Med. Jour.*

Antiseptic Dressing for Wounds.—Dr. J. S. Prettyman, of Milford, Del., sends the following: For twenty years or more I have been in the habit of closing up all fresh wounds, that were clean or could be made clean, and that were not extremely ragged, with bandages kept well saturated in the following: ℞. p. myrrh, ℥ viij.; p. benzoin, p. capsic., ℥ j.; ol. onisi, O.iv. M. Make a tincture, which I call *tinct. myrrh. comp.*

If the bandages are saturated with it they form, with the gum, a nice case all around and over the wound, and retain the parts *in situ* in an excellent manner. No treatment that I have ever used, or seen used by others, seems to me to be quite equal to this in the excellence of the results. It appears to keep down inflammation, prevent suppuration, pain and soreness, and greatly to promote the healing process. Lately I have improved the preparation as follows; ℞. p. myrrh, ℥ viij.; p. benzoin, ℥ iv.; powd. capsic., ℥ j.; alcohol, O.iv. M. Make a tincture, and use as above indicated.

This treatment of suitable wounds I can recommend in the highest manner. Twice a day the dressings should be saturated, and no change made in them for a week, unless untoward symptoms make it necessary. When the dressings are to be changed, saturate them well with alcohol to soften the gum, so that the bandages will not adhere.—*N. Y. Med. Record.*

Mechanical Treatment of Hæmatemesis.—The difficulty of controlling hemorrhage from the stomach or œsophagus by any of the ordinary means led Dr. Schilling to employ an apparatus by which direct compression might be made against the inner walls of the organ. It consists of a flexible stomach tube with a rubber bladder at one end and a stop-cock at the other. The bladder is introduced and very slowly and carefully inflated until it is made large enough to excite contractions in the stomach. In this way the hemorrhage is controlled. The air should be let out again very slowly, so that the clots may not be loosened. If the bladder has been oiled previous to its introduction, the danger of adhersion to it of the coagula will be lessened. If this procedure fail to arrest the hemorrhage, we may then conclude that its source is in the œsophagus (usually it is at the lower portion of the tube), and recourse must then be had to the œsophageal tampon. The author relates one case of repeatedly recurring hæmatemesis, which was permanently arrested by the use of this bladder for twelve minutes. The inflation should be moderate, as the object is to excite contraction of the gastric walls and not to distend the organ.—*Centralblatt für Chirurgie.—Med. Record.*

Operative Delay in Acute Phlegmonous Inflammation.—No insane delusion, no Spanish Inquisitor, ever caused so many hours of excruciating physical torture as the hallucination that acute abscesses and furuncles must not be incised until pointing has occurred. All the world knows that evacuation of imprisoned pus in phlegmonous inflammations means instant relief of the agonizing pain, yet how few of the profession early and freely incise such inflamed tissues unless they first see the yellow pus under the thinned skin or feel the fluctuation of the fluid in the abscess cavity. The pain is caused by the effort of the pus and sloughing tissue to escape. Is it not, then, more rational to make a free incision to-day than to wait till next week? Time and pain are both saved by early incision. If the cut is made before the pus is actually formed, so much the better. Probably no form of abscess needs early and free incision more imperatively than that under the palmar fascia. Destructive burrowing of pus is prevented by this radical procedure, which also saves the patient many days of poultices and purgatory.—*Roberts on Surgical Delusions.*

Convallaria and Digitalis.—Professor Coze, assisted by Dr. P. Simon, has completed a series of careful experiments upon the actions of *Convallaria maialis* and digitalis upon the frog's heart. He finds ("*Bull. Gén. de Thérap.*," Dec. 15, 1883) that in both cases a prolonged and strengthened systole is produced after a time, with increased arterial tension and more sustained flow of blood, the diastolic slowing of the blood-current becoming less perceptible under the influence of the medicines. He finds that this increased steadiness of the blood current is more marked when convallaria is used, although digitalis seems equally able to slow the pulse. In the cases where full doses of digitalis were given, a dangerous tendency seemed to develop for the heart to linger in an unduly prolonged systole, as if it were on the point of stopping altogether. This was not observed when convallaria was used. The author prefers covallaria, on the basis of physiological experiment, as safer and more effective in stimulating the circulation.—*N. Y. Medical Journal.*

Fat Embolism.—In the light, then, of these and numerous similar cases, and of careful experiments and pathological investigations, we are justified in formulating the following conclusions:

1. Fat embolism in varying degrees of severity is not an uncommon complication of surgical accidents and operations.

2. It may be so mild as to be lost sight of in the general condition of shock, or, perhaps, more properly speaking, it is one factor of a condition of prolonged shock.

3. Our knowledge of the subject will be greatly increased when we appreciate the possibilities of its occurrence and observe our cases more closely, watching for the appearance of fat in the urine, of slight dyspnœa, etc.

4. When prostration and loss of blood have been great, a moderate amount of embolic disturbance of this kind may serve to turn the scales against a patient who would have otherwise recovered.

5. By a proper understanding of this subject certain deaths may be explained which otherwise seem inexplicable.

6. Treatment can only be symptomatic, but may accomplish something.

7. Autopsies should be so conducted as to reveal this condition when present.—*Dr. Roswell Park, N. Y. Medical Journal, Aug.* 16.

Oral Pathology.—A red line on the gums, with fetor and metallic taste, indicates ptyalism; a blue line, lead poisoning; great sponginess, with sloughing and great fetor, scurvy; a red line about the teeth and along the gums, periostitis; purple gums and purulent discharge, necrosis; gums hot, red, swollen, very tense, phlegmon; gums inflamed and soft, with fluctuations, alveolar abscess; swollen gums, fetid discharge, mucous patches, shallow ulcers under the tongue, eroded palate, eruption of mouth, skin and scalp, gums everted, fetid matter from necks of teeth, syphilis; a white coated tongue, indigestion; a brown, dry tongue, depression, blood-poisoning, typhoid fever; a red, dry tongue, inflammatory fever; a red, glazed tongue, general fever, loss of digestion; a tremulous, moist and flabby tongue, feebleness, nervousness; a glazed tongue, with blue appearance, tertiary syphilis. —*Independent Practitioner.*

CAPSICUM NOT CHLORAL, IN DELIRIUM TREMENS.—In a paper published in the *Boston Med. and Surg. Journal*, Dr. C. M. Seltzer says: Beef tea, made red-hot with red pepper, is the very best treatment for delirum tremens. A patient to whom I once administered such a dose, made so strong that I would not have dared to taste it myself, afterward told me that it was the most refreshing and cooling drink he had ever taken. A London surgeon of the police told me that he had treated a hundred and fifty cases of delirium tremens with this remedy alone, and had not lost one. The use of chloral in these cases is criminal, and many a death certificates of "delirium tremens" ought to be "heart failure from chloral poisoning."

PERMANENT PILLS OF PERMANGANATE OF POTASSIUM.—According to a correspondent of the *Deutsche Medizinal-Zeitung*, a Russian pharmacist has hit upon an expedient for preventing the change which the permanganate is prone to undergo when made into pills. The formula is as follows: Vaseline, 2 parts; paraffin, white wax, each 1 part; white bole, 3 parts. The vaseline, the paraffin, and the wax are to be melted together, and when the mixture is cold the bole is to be added. The permanganate of potassium is to be reduced to a fine powder in another mortar, and then added to the mass. The pill machine used should be of horn or of wood.—*N. Y. Med. Journal.*

CIMICIFUGA IN EPILEPTIFORM NIGHTMARE.—Dr. Ed. M. Small, of Eastport, Maine, sends us the report of a case occurring in his practice almost identical with one published recently in these columns in the report of Prof. H. C. Wood's clinic. The disease was epileptiform nightmare, and it was cured in Dr. Small's case by half a teaspoonful of powdered *cimicifuga racemosa* being administered at bedtime. The paroxysms at once ceased, and there had been no return in a lengthy period of observation. The patient also was ordered to partake of only a light supper each night.—*Phila. Times.*

FORMULA FOR HÆMORRHOIDS.—Dr. B. Lee, of Philadelphia, recommends the following: ℞. Pulv. rhei., ℥ iv.; pulv. aloes, ℥ iii.; pulv. myrrhæ, ℥ ii.; sapon hispan, ℥ ii.; ol. cajeput, ʒ i. The powders are to be rubbed up together, the soap worked in, and then the oil. The well-mixed mass should be used as fresh as possible, and should be kept in air-tight bottles. Three grains of the mass make an effective pill, which is not irritating, and may be used a long while without diminishing the susceptibility of the intestines, and often with positive benefit to the hæmorrhoidal affection.—*N. Y. Med. Record.*

OXALATE of cerium has been used quite successfully as a palliative to the cough in phthisis. It has the very great advantage of not disturbing the digestion or bowels. To preserve the appetite of a consumptive is quite as necessary as to relieve his cough. Thirty grains of the oxalate is given at bedtime, and repeated before morning, if advisable. Ten grains may be given every few hours during the day, if necessary. A little chloral hydrate or spirits of chloroform combined with the remedy often greatly assists its action.

DEAFNESS IN SYPHILITIC TABES.—From *L'Union Med.* we learn that Dr. P. Hermet, in an article on this subject, draws the following conclusions: 1. Deafness in syphilitic tabes is due to a deep lesion. 2. Its evolution is very rapid, and it may be considered as a symptom of the preataxic period. 3. It is an element in making a diagnosis, and when one observes sudden deafness in a syphilitic, without apparent lesion, other symptoms of locomotor ataxia should be carefully looked for.—*Medical and Surgical Reporter.*

ACUTE INFLAMMATORY RHEUMATISM.—The following formulæ are from the *Keystone Medical Journal:* ℞. Flu. ext. manaca, ℥ j; salicylate of sodium, ʒ iij; tinct. digitalis, ʒ j; aqua font., ℥ ijss. M. Sig. Teaspoonful in wine glass water every four hours. Also: ℞. Quinia sulph., grs. xxx; soda bicarb., ʒ j; podophyllin, gr. j. Trit. and mix thoroughly and make twelve powders. Sig. One every four hours, alternated with above.

Book Notices.

THE FORMATION OF POISONS BY MICRO-ORGANISMS. A Biological Study of the Germ Theory of Disease. By G. V. Black, M.D., D.D.S. 8vo. Pp. 178. Philadelphia: P. Blakiston, Son & Co. Cincinnati: R. Clarke & Co. Price $1.50.

This little work is divided by the author into two parts. The FIRST PART contains three lectures, and is more particularly devoted to a history of the progress of the work in elaborating the "Germ Theory of Disease." Many familiar names, as the author states, will be missed for the reason that many have written, and some of them very well indeed, who have developed no distinctive fact or thought that is of service in the further progress of the subject. He truly says that few have been instrumental in the development of the real basic facts on which our knowledge of it rests.

The author finds the first translation of an indefinable something that could pass from the sick to the well, in the way of causing disease, in Homer's Odyssey (Book XXII). Passing along the centuries, noting the views held and progress made in studying the causes of disease, he comes down to the time of Astier, in 1813, when there is discovered, in his views, the first appearance of the modern germ theory in a definite form, and the first announcement of the true theory of the antiseptics. Astier asserted that "the matter of ferment, recognized by Fabroni as an animal substance, was alive and derived its nourishment from the sugar, whence resulted the rupture of the equilibrium between the elements of this body." "By this theory," said he, "it is easily explained that all the causes which kill animals or hinder their development must be opposed to fermentation."

The next real advance, our author says, was made about the year 1838, when Schwan and Latom, each independently, took up the microscopic inquiry with improved instruments, and discovered that the granules of yeast were membranous bags, which exhibited all the morphological characters of vegetable cells, and under proper conditions increased and multiplied in the biological sense. The conclusion was quickly reached by them, that it was the life and growth of the plant which caused the chemical changes of fermentation; and that the products, carbon, dioxide and alcohol, were excrementitious products of the plant. From Schwan, Dr. Black proceeds with his history until he reaches the present time of Lister, Pasteur and Koch.

The work will be read with a great deal of interest, indeed, by every intelligent physician. In fact, so full of information is it, that we would think every medical man would wish a copy. We have not met with so readable a book for a long time.

TEXT-BOOK OF MEDICAL JURISPRUDENCE AND TOXICOLOGY.—By John J. Reese, M. D., Professor of Medical Jurisprudence and Toxicology in the University of Pennsylvania, Vice-President of the Medical Jurisprudence Society of Philadelphia, etc. 12mo. Pp. 606. Philadelphia: P. Blakiston, Son & Co. Cincinnati: R. Clarke & Co. Price $4.00.

The author states that this text-book has been written more particularly to meet the wants of students of Legal Medicine. The field has already been occupied by able and popular treatises on medical jurisprudence, but experience has proven that the most of these ponderous and exhaustive works are but little suited to the wants of a medical student. The most to which a student can give his attention, in pursuing a study, are the leading principles. He has not the time to study long reports of cases, by which nice points in legal medicine are illustrated, nor would he be able to appreciate them if he had. Lengthy and learned disquisitions are interesting and edifying to those only who have ceased to be tyros in medicine, and are engaged in the practical application of principles to real cases. The author, consequently, in this work, has condensed all the *essentials* of medical jurisprudence in a book of convenient size, presenting them in a simple and familiar style, giving proper prominence to those of the greatest importance.

Very great prominence has been given to the subject of Toxicology. In fact, nearly one-third the work is devoted to the consideration of it. It is, however, of very great importance in all of its various phases, and a student should thoroughly study it. Due attention is given to Insanity—or, as much so as can be done in a work of the kind. So also it may be said in regard to Legitimacy, Infanticide, Pregnancy, Rape, Feigned Diseases, Signs of Death, etc.

We have no doubt but that the work will meet with the favor it deserves, and we would not be surprised if it should be generally adopted as a text-book.

?QUIZ-COMPENDS? No. 10. A Compend of Organic and Medical Chemistry; including Urinary Analysis and the Examination of Water and Food. By Henry Leffman, M. D., D. D. S., Professor of Chemistry and Metallurgy in the Pennsylvania College of Dental Surgery, and of Clinical Chemistry and Hygiene in the Philadelphia Polyclinic. 12mo. Pp. 124. Philadelphia: P. Blakiston, Son & Co. Cincinnati: R. Clarke & Co. Price $1.00.

This little work belongs to the series of Quiz-Compends of Messrs. Blakiston & Co., several of which we have already noticed. As we have stated before, these little works are designed for medical students to assist them in reviewing the Lectures.

As stated in the advertisement, these Compends are based on the most popular text-books, and on the lectures of prominent professors. They form a most complete set of manuals containing information nowhere else collected in such a condensed, practical shape. The size of the books is such that they may be easily carried in the pocket.

Not only medical students, but physicians will find this little work of great value. It contains not a little that can not be found in other works upon chemistry. There will be found very full directions for analyzing urine, testing milk and various foods. In fact, it is replete with information.

Editorial.

THE INDEPENDENCE OF THE JUDICIARY.—This is the heading of an article in a late number of the *Commercial Gazette*, contributed by a correspondent, who signs to it the initials "D. S. W." The object of it is to point out the danger to the country of the custom, which seems to be increasing, "of politically assasinating judges" whose decisions, although conscientiously rendered according to law and the Constitution, are opposed to the popular prejudices. To define the subject of his article in his own words, we will quote a question he asks: "Is it to be understood that a judge is to be politically assassinated because he honestly and fearlessly discharges his duties according to the Constitution which he has sworn to support?" After asking this question he proceeds to say: "If that is the understanding upon which parties are to be divided, let the decree go forth at once. Let it be declared that Courts are to decide questions of law, not according to law, but according to what is supposed to be the popular notion of things. Let it be declared that the decisions of our Supreme Court are to be submitted to the supervision of political mobs, assembling at corner groceries, for the purpose of imbibing political wisdom, as such organizations usually imbibe such wisdom at such groceries aforesaid. Then when this is all done, let us see where we will come out as a body politic."

After thus discussing the subject of the judiciary, the correspondent alludes incidentally to the *spasms* of virtue which occasionally seize communities, when they suddenly awaken to the necessity of vindicating public justice. At these times "they hang, draw and quarter for a season, and then go to sleep again and sleep the sleep of the just." In these paroxysms of righteousness they are indiscriminate as to whom their laws shall punish, and innocent and guilty suffer alike.

In thus alluding to the occasional virtuous spasms of communities, when, in consequence of some crime of more than ordinary enormity, people demand the punishment of some victim or victims, and seem to care but little who it is —whether guilty or not guilty, whether responsible or not responsible—so that some one suffers, one would almost be disposed to think that the correspondent had gotten his inspiration in reading some back numbers of the MEDICAL NEWS. More than a year ago, in an editorial in the NEWS, in illustrating some psychological phenomena, we stated, as a most remarkable fact, that it sometimes happened that not only communities, but even the people of a whole nation, would become so importunate for the sacrifice of a victim in expiation for the commission of some great crime, that the actual guilt or innocence of a party charged would be lost sight of—once charged or suspected, he must suffer, for a victim must be sacrificed to meet the great clamor. We alluded to Mrs. Surratt, who was executed, not because she was proven guilty of abetting in the terrible crime of the murder of President Lincoln, but because a great cry went forth from over the whole land for victims in expiation.

For if her son was not guilty, still less was she; and he easily proved his innocence after the excitement of the assassination had abated and people had been appeased. If he had been tried at the time his mother was tried, there is no one who does not believe he would have suffered death. But we will quote from the article of the correspondent, that our readers may see how he agrees with previously expressed opinions by us: "Twenty years ago the Nationality was disgraced because a woman was hanged. Mrs. Surratt was executed, not at all because she was guilty, but because President Lincoln was assassinated. The popular fury called for a victim, and one had to be furnished. The same is true of Guiteau. Does any one now, not a lunatic himself, believe but that Guiteau was a lunatic?"

In our last issue we expressed the belief that of the five or six men at that time confined in the jail of Hamilton County and under sentence of death (one, since then, has been executed) one of them at least, a man by the name of Hartnett, is insane. Says the correspondent in his communication to the *Commercial Gazette:* "It is my belief that there are men to-day in the jail of Hamilton County, who are irresponsible, and yet are under sentence of death, and who, unless the pardoning power intervenes, will die a sacrifice to the senseless fury of a mob."

As D. S. W. uses the plural we think it probable that he considers a man named Hoffman as well as Hartnett* *non compos mentis*, who is under sentence of death for shooting a son. We are not informed sufficiently of Hoffman's history and of the particulars of the crime with which he is charged, to form an opinion whether he is insane or not. We have understood that it is stated that he has near relatives who are inmates of asylums for the insane, and that his conduct, previous to the killing of his son, was marked by gross inconsistency. But if insane, as is possible, he will stand but little chance for his life at the present time, when the excitement, brought about by the recent mob and the burning of the Court House, has not yet subsided—the community associating those disasters with the escape from punishment, which seemed to have become almost the general rule, of great criminals, through corrupt criminal lawyers who would almost openly hire witnesses and pack juries.

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*He does not mention Hartnett as one of those he believes to be irresponsible.

In other words, the *spasm of virtue*, which resulted from the causes mentioned, has not yet relaxed, and consequently there is existing a demand for a victim whenever a crime has been committed, and, as is the case under such circumstances, it makes but little difference whether the party charged is guilty or not guilty. Some one must be punished following upon a crime, or the popular demand will not be fulfilled, and the cry will be made that the law is being trampled under foot. At such times all are deaf to protests of innocency of an accused for this or that reason; for to the popular mind an illegal act and wickedness are so allied that it can not imagine how the former can be without the latter, and when, therefore, an effort is made during a time of excitement to abstract the latter element, it is thought to be the object to cheat the law of its due.

When we characterize the present general urgent demand in Hamilton County for the enforcement of the laws as a *spasm of virtue*, we do not do so in derision. Not regarding the citizens any more disposed to be law-abiding now than they were a few months ago, the excitement which is now attached to the disposition to preserve the integrity of the laws resembles a spasmodic action, in that, like all excitements, it will gradually cease, being an unusual condition. It is a fact, too, to which all psychologists assent, that communities do not coolly, calmly reason, giving full weight to all arguments. They must necessarily be swayed to a large extent by mere feeling. Scientists, therefore, when they come in conflict with a community in the expression of their views, have but little respect shown them.

In conclusion we will observe that if the attorneys of Hartnett had set up the plea of insanity in his defense, when he was tried, we have no doubt but that they could have easily established it; but as they did not, and as we have heard of no efforts made since to prove him insane, we presume he will be duly hanged when the day appointed for his execution arrives. Although D. S. W., seems in his communication to the *Commercial Gazette*, to take up somewhat in their order views that we have expressed in times past in the MEDICAL NEWS, and assent to them, yet, presuming he is not a physician, we do not suppose he is indebted to us for his opinions.

Quarantine Improvements.—We understand that at New Orleans quarantining of ships has been greatly improved. Instead of detaining a vessel with its cargo and passengers at a distance from the city for forty or sixty days as used to be done, they proceed immediately to disinfect and then permit the ship to proceed to the city. Hospital experience proves that yellow fever is conveyed through the medium, not of persons, but of things. So soon as a vessel arrives from an infected port, say Rio, and is placed in quarantine, acclimated stevedores break the cargo and transfer it to the warehouse, already built by the U. S. Government, where it undergoes thorough fumigation. As soon as completely emptied, the quarantine tug, a compactly built small vessel runs alongside of the ship. A hose attached to a powerful forcing-pump aboard the tug, is let through the forward hatch down into the hold. The pump is started and the washing begins, while the ship's pumps are set to discharging the foul bilge-water. This continues until she is washed clean, not only in the floor of the hold and limbers, but the ceiling and every available part. She is now pumped out, the hose removed, and then begins the disinfection and fumigation. Another large hose attached to a powerful exhausting fan is lowered into the same position as the first. The hatches and every other outlet are closely battened, with the exception of a small ventilating hatchway either at the bow or stern. A quantity of sulphur is put into the furnace connected with the fan and ignited. The exhaust-fan is started and sulphurous acid gas in immense volume and with tremendous force is driven into the limbers and air strakes, into every crevice and part of that ship, until she is completely filled.

In doing this not only is displaced the mephitic and dangerous atmosphere closed in the ship when she started from Rio, but also there are destroyed all organic elements which may produce a specific disease, like yellow fever. The fumes of the sulphurous acid gas are so powerful that no animalculæ can exist in them for more than two seconds, and the port-holes being closed for twelve hours, the process can not fail to be effective.

After a few hours the hatches are removed and pure air is driven in to facilitate clearing the ship of the fumes. She is reloaded and, with her captain on board, proceeds at once to the city, there to be discharged only by an acclimated gang.

As Dr. Jas. Holt says, from whose address, published in the *Sanitarian*, we have gathered these facts, a vessel after forty or sixty days' detention is no more a healthy vessel than before, if she has not been treated in the manner mentioned or a similar one. She is just as foul and capable of spreading disease when she has only been detained as before.

In concluding we will quote Dr. Holt's words: "The word quarantine implies simple detention, originally forty days. A vessel detained ten days or sixty days is no more a healthy ship at the end of that time than she was at the beginning. To make her healthy while we are detaining her requires something more—a something suggested by common-sense—which, too, has acted admirably in ports where thoroughly supplied. She is sick; we are the physicians and must treat her. Cleansing and disinfecting a ship is like putting out a fire. She may be deluged, but if we leave the fire burning in only one small place, the ship will be lost. Not because water and carbonic acid will not put out the fire, but because as firemen we do not understand the business."

TREATMENT OF ASIATIC CHOLERA.—The *Dublin Journal of Medical Science*, so says the *St. Louis Med. and Surg. Jour.*, contains an article by F. E. McFarland upon a "Few Plans of Treatment of Asiatic Cholera, Especially with Reference to Permanganate of Potassium." He served in India thirteen years, where, after trying opium and calomel, the salt and belladonna treatment, he found the permanganate of potassium treatment the most successful of any he had seen. He learned it of Surgeon-General W. A. White, R. A., who employed it always. He states that the salt must be pure, and says that it is a pleasant remedy, and does not add to the sufferings of the patient. His plan was to give a teaspoonful of a solution prepared by dissolving one grain in four ounces of distilled water, every ten minutes regularly by the watch, until reaction was established, and then give beef tea, etc. "No other medicine is necessary. The first symptom relieved is the sickness, then the thirst, then heat returns, purging and cramps cease, and after some hours the kidneys act."

Speaking of the calomel treatment, he states that *post-mortem* not unfrequently revealed the calomel spread over the inner surface of the stomach, from which it was scraped off unchanged. In some cases in which oxygen had been inhaled, the patients, after expressing themselves feeling quite well, would fall back and die.

In many cases of cholera in which the fluids of the body are rushing outward—into the stomach and intestines—we can not perceive how any remedies, taken into the stomach, can be expected to accomplish anything in the way of a cure. No absorption can possibly take place under such circumstances; for the conditions existing are opposed to it. It is not surprising, therefore, that calomel was found in the stomachs of those who had died unchanged. When the epidemic influence is of a malignant character, we have no doubt but in the majority of instances the vital force receives a fatal blow at the onset, and no medicine will relieve; but when a fatal result would not necessarily result, and remedies might be of service providing they could be gotten into the system, we consider that the best means to effect that will be by the hypodermic needle.

ADVICE OF PRISON REFORM ASSOCIATION.—There is no class of men more interested in the increase of vice and crime than physicians, for these are the great causes of insanity and disease. We are led to make these remarks by learning that the Prison Reform Association which lately met at Saratoga, ex-President Hayes in the chair, expressed themselves in strong language against the prevailing practice of daily newspapers giving detailed accounts of all sorts of crimes, and interviews with criminals, reports of executions, etc. They characterize such practices as highly demoralizing in their influence. Officers of prisons are stated to have reported that, on this account, daily papers are excluded from the hands of prisoners. The Association earnestly appeals to publishers to make a reform in this demoralizing feature of their papers. It is regarded as one of the most fruitful sources of crime of the present day.

Really, scarcely the best of the daily papers, at this time, are fit to be admitted into a family where there are children, so full are they of the disgusting details of seductions, abductions, rapes, murders, prize fights, interviews with vile characters, etc. The Sunday issues, especially, of many papers are scandalous in the extreme, so filled are they with details of criminal acts and licentiousness, purposely prepared to make that issue salable. On Sundays it is supposed that people have more time for reading than upon other days, and presuming that there exists a morbid curiosity for scandal, and that accounts of it are the most interesting and desirable reading matter for the masses, the filth that is served up on those days is sickening.

Every physician who has an interest in his patrons and in the community above dollars and cents, should discountenance, to the extent of his ability, the publication of such stuff in newspapers.

THE PROGRESS OF CHOLERA.—The reports from Europe, at our time of writing, in regard to the progress of cholera, are to the effect that it is very much on the decline. A few weeks ago the disease prevailed to an alarming extent in the city of Naples—as many as six and eight hundred new cases occurring daily. King Humbert during this time, it is stated, in spite of protestations of friends, continued in the city, visiting the hospitals and doing all he could for the relief of sufferers.

Whether or not we will have an epidemic of cholera in this country, of course it is impossible to say; but it seems to us probable that we will. Heretofore, when it has appeared in Europe, it has reached this country before becoming exhausted.

OBITUARY.—The many friends of Dr. J. C. Culbertson, the editor and proprietor of the *Lancet and Clinic*, of Cincinnati, will learn with sorrow of the decease of his estimable wife, which occured September 2d. The deceased was sick for a long time, her disease being cancer. Her death, under the circumstances, had been expected for some time, but death is always a shock, however long the time it may have been looked for, and the bereaved feel themselves as unprepared for it as if it had come without warning. It occurs before its deep poignancy is felt.

Mrs. Culbertson was a Christian woman, and her husband and friends will not sorrow for her as "those without hope," but will have comfort in the fact that, though dead, she still lives.

Dr. Culbertson, in his bereavement, has the sympathy of numerous friends.

THE
CINCINNATI MEDICAL NEWS.

VOL. XVII. No. 202. Old Series. | OCTOBER, 1884. | VOL. XIII. No. 10. New Series.

Original Contributions.

Peculiar Effects of Bee Stings.

BY E. A. COBLEIGH, M. D., ATHENS, TENNESSEE.

WE are all of us, as physicians, more or less interested in such anomalous cases as fall in our way; wherefore I report briefly the following, as worthy of, at least, the passing attention of others who may not have seen anything of a similar nature.

Three years ago my little daughter—then about five years old—was stung by a hornet on her forehead while we were spending a day in the country. The magnitude and rapidity of the subsequent swelling showed me that she was peculiarly susceptible to the poison of a wasp's sting, but nothing else was thought of it at the time. The following season, having seen her brother carelessly handle a "bumble-bee," she deliberately picked one up, and was stung on the thumb as a result. She immediately told her mother what had happened, but made no particular complaint, and nothing was done for the sting. Five minutes later my wife telephoned me to hurry home; and on my arrival I found the child badly frightened, suffering somewhat from palpitation, and one side of her face, neck, and one shoulder literally covered with the peculiar eruption of urticaria. The side affected corresponded to the injured thumb, and the pruritus was excessively tormenting. Some of the wheals were as large as the palm of a man's hand; and as I watched her they kept coming out, rapidly but regularly extending downward and across her body, until the eruption had traveled over the whole surface from head to foot, and from side to side. The first wheals began fading, however, before the last ones came out, so the surface was not all covered at the same time, and the entire phenomena had passed before my eyes and ended in an hour. No treatment was resorted to except to calm her by assurances that she was in no danger of death from the poison of the sting.

Since this occurrence, I have seen one other case almost like the one narrated, but not near so severe, also the result of a bee sting—I do not now remember what kind of a bee—and in the person of a little girl about four years old. Vomiting accompanied the eruption in this child, and the parents assured me that the same results had followed a sting in her case several times.

Lastly, early this summer, having cast aside her shoes for a run on the grass, and while playing croquet, my daughter again received a sting, this time by *stepping* on a common honey-bee. The sting was on the ball of the great toe of the right foot, and in five or ten minutes afterward the effect was seen, not in an urticaria, but by an œdema of the *left side of the face*, most marked in the superior eye-lid, which was so puffy as to close the eye altogether. There was little or no eruption, so far as I remember now, unless, perhaps, a little on the forearm corresponding to the side of the face which was involved. The swelling of the face persisted for twelve hours or more after its appearance, and then gradually faded. In short, except that the œdema of the face and eye were quite soft, and no effusion of recognizable lymph occurred, the swelling on the face bore the appearance of being from a sting right in the immediate neighborhood. This, however, was not the case, as I satisfied myself at the time by a careful examination.

I present the cases just as they happened, without comment or explanation. That urticaria sometimes results from a sting is a well-known fact, yet it is rare enough to be a curiosity, and certainly not often so sudden or peculiar as the case observed by me; and I never heard of any reflex manifestations from this cause, such as those last mentioned.

Diseases of Florida.

BY L. R. PEET, YALAHA, FLA.

DR. THACKER: Having lived here in the central part of the State for six years, I find myself so far posted concerning what human flesh is heir to as to have a surplus, with which I may make myself useful by communicating it to those who are often called upon for advice in reference to going to Florida to live. Not being a physician, I must content myself with a simple description of what I have experienced, or have seen others experience.

The miasma we have for a couple of miles inland from the shore of these lakes is of a complicated character, if we are to judge from the many ways in which it manifests itself. It seems to be the cause of all our indigenous ailments; and those functional derangements are measured in their intensity and frequency by the amount and rankness of that mysterious gas.

The commonest abnormal condition is the one arising from ague—the shaking or the dumb kind. These chills do not differ appreciably from those prevalent in so large a part of the civilized world. They have their degrees of intensity as they do everywhere else. Sometimes the cold stage is short—may, indeed, be confined to one member, and escape notice, while the fever is twelve or fifteen hours long, and the sweat quite as long. This is true of the shaking sort. The dumb ague has more the nature of a congestive chill. The first stage is so obscure as sometimes to be mistaken for a mere change in the weather. The fever is very long, and affects the brain much less than the first described. When I find myself saddled with a dumb chill, I expect never less than thirty-six hours of fever, though generally during the last twelve hours of the thirty-six perspiration may be quite copious. The sweating stage of the dumb chill may continue twenty-four hours, or longer, and has a sickening, bitter smell to the victim. The worst feature is the effect on the bowels, which very likely arises from poisonous secretions of the liver acting as cathartics, carrying off the nourishment in its penultimate stage of digestion. Very marked weakness ensues; and if there is not a speedy riddance, the patient is soon brought to bed. Fortunately quinine, in sufficient doses, will put an end to the trouble, for at least seven days, at the expiration of which time there may be a return, unless precautionary doses of the drug be given on the sixth day.

The so-called congestive chill, often arising from neglecting to break up the milder forms mentioned, is a form dangerous to life. The system does not react on the surface, and the internal organs become surcharged with blood, resulting in death, sometimes in a few hours. This phase of chill is not common here. With proper care it may, indeed, be generally warded off. Persons addicted to alcoholic beverages are more liable to congestive chills than those not thus addicted.

Within two or three years an affection, known as the yellow disease, has shown itself in very miasmatic districts. It comes on gradually, and, if neglected, is very apt to be fatal. It has some of the symptoms of yellow fever, but differs from it in several essential features.

Dysentery of a decidedly malignant type—occasionally fatal—prevails here at times. In a milder form it may become chronic, and is then hard to manage. Change of location works beneficial results.

Typhoid fever is one of the rare manifestations. It is seldom fatal, though protracted and difficult to handle.

Decay of the kidneys I have never heard of here. There is, however, much irritation of that organ during ordinary chills. I have known of over forty actions of the bladder in eight or nine hours, while the patient was in the fever stage of what is popularly called the break-bone chill—a form differing from the usual chill by being attended with severe pain in the bones.

Of course, if any of the foregoing diseases, that are susceptible of it, become chronic, thinning of blood results and dropsy ensues, which must be checked or the patient dies.

A very harassing cough, lasting several weeks, accompanied with but little expectoration, is at considerable intervals, and usually in the summer, epidemic here. It is undoubtedly malarial, never resulting in any damage to the lungs.

There is a variety of cutaneous disorders due to miasmatic poisoning. The first effect seems to be pyæmia; and the skin, in acting as an agent of elimination, is at times sadly dealt with. Granulated sores of various sizes, from the head of a pin to those over two inches in diameter, form on the surface, especially below the knees. Most of them are shallow, and at the end of a few weeks disappear. Occasionally one eats in to considerable depth, is very persistent and painful. I think such aggravated specimens are due to the presence of erysipelas, or a similar virus. These sores may make their appearance on any part of the body; but they are usually found below the knee, probably because that part is more exposed to the fine nitrogenous, black dust that is constantly floating over the sandy surface of the soil, and acts as an irritant.

Any part of the body, where it is convenient to scratch, may break out in the form of psora, and give annoyance. Restraining one's self from using the finger nails is a negative remedy which is often efficacious.

The most painful and thoroughly afflictive thing that miasma entails, is sore eyes. These attacks last several weeks, and are very distressing, indeed. The patient is unable to assume a recumbent posture; the eye-lids are so paralyzed that he can not open his eyes; the inside of the lids, owing to engorgement of the veins, are very irritating to the eye-ball, and no light is bearable, even when the eyes are shut. Some imagine they are temporarily relieved by eye-waters. The only mitigation I could get was to lift the upper lid with the forefinger for a few seconds, so that fresh air could come to the ball.

It should not, from the foregoing, be inferred that Florida is a pestilential region, for that would be far from the truth. It is, indeed, comparatively healthy here. Away from our lakes, good health prevails to a remarkable degree.

Translations from Our Foreign Exchanges.

Translated for MEDICAL NEWS, from the French of Prof. Pagot, by Dr Illowy, Cincinnati, Ohio.

A VERY RARE AND EXCEPTIONAL OBSTETRICAL CASE.

I SHALL speak to you to-day of a very rare and interesting case, a case *really exceptional.* The patient in question, a woman, was brought to the hospital on the 29th of December, in the evening. Very few of you know her, and it is impossible for me to show her to you, because her condition is still a very grave one and necessitates absolute quietude and rest. I did not see her until the 30th of December, in the morning—the hour of my visit. This, in brief, is her antecedent history: she has had two children, and in both cases the accouchement was spontaneous, although very laborious. In her present confinement she was in the city, assisted by a midwife. The labor being very tedious, the midwife, who had not diagnosed the presentation, thought it incumbent upon her to break the bag of water. This imprudent maneuver not having improved things any, the midwife became very anxious and demanded that a physician be called in.

The physician, in his turn, made various manipulations, the reasons for which we can not very well see to-day, but with no better result. All at once the woman *felt a great pain in her abdomen*, lost a great quantity, and the physician, panic-stricken, abandoned the field.

It was then determined to bring the woman to the hospital.

The next morning the midwife-in-chief informed me that it was a case of trunk presentation, and that the woman had probably suffered a rupture of the uterus. The presentation was easily established, and I replied to the wife, that if I judged by the external appearance only, the hypothesis of the rupture of the uterus could be accepted only with the very greatest reserve. In fact, the woman did not present that external appearance, that profound alteration of the features, which is generally observed under such circumstances. She had the features of having suffered very severe hemorrhages. I made all preparations to turn, and had the woman put under chloroform, after having placed her in the classic obstetrical position. I must state to you that I was also informed that there was a contraction of the pelvis. I introduced my hand into the vagina with the usual precautions and sought for the cervix. I was soon lost in a sort of magma formed of blood-clots and of soft parts, which had accumulated into a veritable cloaca. I discovered a vast rupture beginning in the anterior cul-de-sac, and the prolongation of which in the anterior uterine parietes was of sufficient extent that my hand could easily pass through it. As the great damage wrought prevented me from reaching the neck directly, I withdrew my hand and immediately there spurted out a great stream of blood. This is a peculiarity which should always arouse you, as it is a very sure sign of the existence of a rupture of the uterus.

In a moment I drew the "pathological balance" of my client, which I give you for reflection:

Contraction of the pelvis;
Presentation of the trunk;
Placenta inserted on the inferior segment of the uterus;

Considerable hemorrhage;

Rupture of the vagina and uterus.

Was I correct in stating to you at the outset that the case of this woman was truly exceptional? You who are yet young, who have made but a few steps in your medical career, may perhaps never witness a case as interesting as this.

But there was no further hesitation as to the course to be pursued. To leave the case to nature would be to hand the woman over to certain death in a very short time; the child was dead.

Turning had to be performed. I introduced my hand, and, to proceed certainly, I allowed it to glide along the concavity of the sacrum; I thus immediately reached the neck, penetrated, without difficulty, into the uterus, having taken the precaution to have two hands make firm pressure on the fundus. I turned, which was easily done, till the trunk was completely disengaged.

Here the difficulties began. Nevertheless, the inferior maxillary was reached without difficulty and the head was perfectly flexed, for I had taken the precaution of having an assistant support the cephalic extremity over the abdominal parietes.

But owing to the contraction of the pelvis, it was impossible for me, as also for M. Doleris, who succeeded me in these attempts, to deliver the head. Not deeming it prudent to prolong our maneuvers, I made a cephalo-tripsy, which was of short duration, one application of the cephalo-tribo sufficing.

The parts were washed out with an antiseptic injection, the woman placed on a bed and put into a separate chamber. I directed, before I left, that she be given some brandy, more from the habit of ordering something that might be beneficial, than from any hope that it would bring about a good result. We were all convinced that the woman would not live twenty-four hours. For your instruction and to prove to you that our conviction had good grounds, I shall give you the statistics of all the cases of rupture of the uterus I could find.

In 440 cases of rupture there were 404 deaths.

Of the cases in which the fate of the infant had been recorded: In 263 cases I counted 243 dead infants.

You will acknowledge, gentlemen, that these figures are but little reassuring. Moreover, we are justified in supposing that in the small number of recoveries there were some in which the rupture was relatively slight, whilst in the case of our patient there was, unfortunately, not the least doubt as to the importance of the disorders. Well, despite the extent and gravity of the damage, despite the severity of our prognosis, *the woman is still alive;* and, more than that, *her condition is almost satisfactory.* Her temperature is but slightly elevated—100.4 F.; her pulse rather calm, about 100. She takes food, bouillon (soup), and digests them well. A rather obstinate diarrhœa, which existed in the first days and caused us great disquietude, is about ceasing, and the amelioration becomes daily more marked. We may say that it is only the feminine vitality that is capable of resisting victoriously such shocks as these. It is really a marvelous result; and despite of my, alas! already very old experience, I declare I have seen nothing like it. Gentlemen, we shall continue to observe this patient very attentively, and promise to keep you informed of all that concerns her. As I have said, you will never witness a more extraordinary case than this.

(In a subsequent lecture, M. Pagot thus gave the further history of the case.)

* * * Well, our patient is doing well; she has reached the thirteenth day of her accouchement, *and if she were younger,* I would dare to assert *that she is out of danger.* To give you an idea of the great improvement of her condition, I will tell you that I have just been asked whether the patient may have a beefsteak this morning; she asked for it. I replied she may have it. In truth, I am more and more astonished at the result. I must say that M. Doleris, who is younger than I am, who still has the faith of youth, never despaired of the situation, attended the patient with the greatest devotion and a marvelous solicitude for every thing. Despite all, despite the reassuring aspect which would surely permit us to announce to-day the recovery of the patient with as much certainty as the desperate situation of the first few days made us fear the worst, I nevertheless make some reserve. You will understand this reserve when I state to you a case that occurred in the practice of Prof. P. Dubois. This eminent man made in his lifetime some twenty odd Cæsarian operations. It is not necessary to say, death was the invarible result. Once, however, a patient so operated reached the twentieth day after the operation, and everything led to hope for a favorable termination to this exceptional case.

Gentlemen, this woman was seized with tetanus and died in twenty-four hours.

It is only after we have witnessed catastrophes of this order that we allow the beautiful illusions of youth to escape us, one by one, Therefore, gentlemen, be on your guard, and never affirm in a family that the desperate situation has been overcome, that the patient is saved; for the result may, in a short time, contradict you rather cruelly.—*Scalpel L' Muir Medic. du Canada.*

Three Cases Illustrating Some Points in the Pathology of Certain Injuries of the Shoulder-Joint.

BY C. B. MANCREDE, M. D.,

Surgeon to the Episcopal Hospital, and to St. Christopher's Hospital for Children.

Read before the Philadelphia County Medical Society. Reported for the MEDICAL NEWS.

A FEW preliminary anatomical points must be passed in review for the ready comprehension of my later remarks. The shoulder-joint differs in many important points from any other articulation of the body. A moment's reflection upon the almost unlimited range of movement which it enjoys, will at once suggest that the ligaments of this articulation can not be the means by which the joint-surfaces are held in opposition; otherwise anything like freedom of movement would be impossible in a ball and socket joint where the socket is so shallow as in this articulation. What then does hold, firmly apposed, the articular surface? It must be something always tightly stretched, yet always capable of lengthening, or rather always practically loose. Nothing but muscle could fulfill any such purpose. In truth, the muscles surrounding the joint are the most important ligaments the articulation possesses. When these are paralyzed, or in the cadaver, the head of the humerus readily falls away from glenoid fossa. Bearing this fact in mind, you will clearly apprehend that the joint surfaces are kept pressed together solely by muscular tension. Again, the glenoid fossa, unlike the socket of any other important joint, *has no epiphysis*, which explains to a degree the fact that even in the young the head of the humerus may be so affected as to demand excision, while the glenoid process is either entirely or nearly healthy. Closely related with the scapulo-humeral joint, we find a number of bursæ, some of which commonly communicate with the joint, while others do not. To the former alone I shall devote my remarks. There is a large one between the acromial process and the coraco-acromial ligament upon the one hand, and the shoulder capsule upon the other. Two bursæ—the exact sites are unimportant for our present purposes—are situated between the subscapularis muscle and the capsule. An occasional one is placed between the infraspinatus muscle and the capsule, into which it often opens, as do the others just mentioned. Let an inflammation be set up in these sacs, and it certainly spreads to the joint itself, should communications exist, or nearly as surely by mere contiguity of tissue, if no opening between joint and bursæ is present. The articulation is securely covered in by the voluminous deltoid, so that any direct injury to the fibrous or synovial tissues of the joint is almost impossible from direct force as a blow, although a twist *may* injure it, notwithstanding the latter is more apt to tear the bursal walls. The upper epiphyses of the humerus—of which there are three—coalesce at five years, but they leave a layer of ephiphyseal cartilage between head and tuberosities and shaft, which in places either coincides with the capsular attachment or is actually within it. From these anatomical facts it must be clear that direct force, as a blow, can rarely injure the joint itself, but must either set up trouble in the surrounding bursæ, or in the epiphyseal cartilage, or in both. Once again, the interior of the joint, the muscles moving the joint, and the skin over their attachment, are all supplied by the same nerve or nerves; so that, let a joint injury start where it may, the articulating surfaces of the shoulder-joint are subjected to such an injurious degree of pressure from direct or reflex muscular contraction as is possible for no other articulation. The bearing of these anatomical facts upon prognosis and treatment need hardly be pointed out.

The first specimen I proposed showing was presented to the Society some years back, and my reason for again showing it is the sharply contrasted result presented by the second specimen which I shall exhibit.

On November 27, 1878, the Society had an opportunity of examining the first patient and the admirable results of the case. To those who were not present, or who have forgotten the details, I will briefly recapitulate the history of the case, with the treatment pursued.

Compound Fracture at the Anatomical Neck of the Humerus.

The patient, J. M., æt. 14 years, fell, upon the afternoon of Sept. 23, 1878, from a tree, about twenty-five feet, landing on the ground, but, striking in his fall against the branches of the tree, sustained the following injuries: The shaft of the humerus was separated from the head and greater and lesser tuberosities. The line of fracture closely followed the epiphyseal cartilage, although in several places the diaphysis was fractured. The shaft, slightly split, was driven through the integuments over the lower part of the deltoid muscle on its anterior aspect, tearing in its course the following parts; the insertion of the deltoid was completely stripped off with the subjacent periosteum; the coraco-brachial, teres major and latissimus dorsi were in like manner torn off, the latter carrying with them the posterior lip of the bicipital groove. The tendon of the pectoralis major was torn off about half an inch from its insertion, and one, if not both, heads of the biceps was ruptured. In consequence, the head and neck of the bone, deprived of periosteum, merely hung suspended by the capsular ligament and the rotator muscles. The shell of bone connected with the head and tuberosities was fissured at various portions of its circumference, as if by the impacting action of the wedge-shaped extremity of the shaft. I enlarged the wound and removed the fragments you see, viz.: 4¼ inches of the humerus, including its head. Seven weeks after the operation he could remove his coat, vest and shirt without assistance. Ten weeks after the injury considerable reproduction of bone, even up to the margin of the glenoid cavity, was observed, with new attachments for the pectoral and latissimus dorsi muscles, as determined by Dr. C. T. Hunter. The actual shortening consequently amounted to only 1½ inches. He had perfect use of the forearm, could put his hand to his mouth, behind his back, and to his ear. Of course he had lost all over-hand movements.

The course of treatment pursued, and my reasons for deciding upon it, seem worthy of detail, since such injuries are but seldom seen, and, as far as I can discover, no clear rules have been laid down for their treatment. To the members of this Society who devote themselves especially to surgery, I need hardly say that no question of amputation arose in my mind; but to those in pure medical practice I would say that when the main vessels and nerves of a limb remain intact, the injury to the soft parts having been produced by the bone itself, not the fracturing force, almost any degree of shattering of the bones may be recovered from, in the young, without amputation. Two lines of treatment then offered for consideration, viz.: the simple return of the bone, closure of the skin-wound, drainage, and trusting the case to nature; or the resection of the injured bone. Theoretically the first would have seemed the better course, promising no shortening of the limb, and the retention, in a measure, of the power of the deltoid. In reality, however, the chances of union were not one in a thousand: and if not union, then necrosis with its consequent shortening; necrosis, too, meaning months or years of inflammation and suppuration, matting the muscles together so that when recovery occured—almost necessarily by an operation—the usefulness of the limb would be but slight. Resection, on the other hand, offered the complete removal of all injured portions of bone, and with them the most important factors of trouble after such an injury, thus permitting rapid healing, and the smallest possible amount of inflammatory adhesions between muscles, tendons, etc. If the bone had been simply returned, the risk to life would have been greater, owing to the prolonged suppuration incident upon the separation of the necrosed bone and the deep-seated abscesses so common after compound fractures. Against it was the absolute shortening of the arm, with the prospective cessation of growth due to removal of the upper humeral epiphyses.

The actual result, I think, bears me out in the course of treatment pursued, for I hardly think that in seven weeks he would have been in so good a condition, with the wound soundly healed, if I had followed what is often, but falsely, called the "conservative" plan of treatment. I believe that true conservatism indicated exactly what I did. The amount of shortening would not have been much less had the case been left to nature and necrosis. Had this occurred, union of the severed head could not have taken place; and then the same shortening would have obtained as surely as if the epiphysis had been removed. Army experience has shown that when a portion of the upper end of the humerus is removed for injury, nothing is gained by leaving the uninjured head, since it necroses.

Although not cognizant of this fact of experience at the time of operation, anatomical knowledge, general surgical principles and experience induced me to arrive at a conclusion by *a priori* reasoning which I have since found that extended experience had already proved.

I believe, therefore, that, theoretically and from experience, resection ought to be performed for such injuries. It is hardly necessary to say anything about the operation itself, since each case must be a rule for itself, the only point being to remove the bones with as little additional damage to the soft parts as practicable. The wound was dressed antiseptically, and when I transferred the wards to my colleague, Dr. Packard, no suppuration had occurred, and there was not the slightest inflammatory blush about the wound. He did uninterruptedly well, and the wound was soundly healed in less than seven weeks, the greater part at a much earlier date.

Sharply contrasted with this case and its results is that of the patient from whom the next specimen was removed, where the head of the humerus, luxated and partially fractured and protruding through the skin of the axilla, was *reduced* instead of being resected. Here the tension of irritated lacerated muscles, conjoined with the necessarily imperfect drainage, kept the injured bone bathed in unhealthy pus. This, with the original injury, resulted in an osteomyelitis, which necessitated my amputating at the shoulder-joint. I believe, had the head of the bone been removed, a fairly useful limb would have been the result at the end of a few weeks' treatment, while instead, after three months of illness and risk to life, amputation was the best I could do for him.

Compound Luxation (with Fracture) of Shoulder-Joint.

—— ——, æt. 30 years, man, three months ago had his right arm caught by the belting and drawn over a large drum in a position of extreme abduction and probably of extension. The head of the bone was luxated, the greater tuberosity torn off, and the caput humeri thrust through the axillary integuments near the anterior axillary fold. When I first saw him at the Episcopal Hospital after the accident he was very pale, with a constant discharge of pus from an opening at the site of the old wound, *i. e.*, near the anterior axillary fold, while the orifice of another deep-seated sinus was seen over the middle of the triceps on the outer side of the arm. A probe introduced into the anterior sinus readily touched the denuded carious head of the humerus. I attempted to exsect the head of the bone, but when prepared to saw it, after its protrusion through the wound, I found such evidences of osteomyelitis as to render amputation at the shoulder-joint necessary. He did well and recovered, but even some months later a sinus existed, doubtless the result of necrosis of some of the fragments of periosteal bone, produced by that irritated structure. As before said, had the head of the injured bone been excised, a useful arm would have probably resulted.

The third and last case is one where a comparatively trivial injury, owing to non-treatment at first, resulted in a condition which demanded resection of the shoulder-joint.

Chronic Arthritis of the Shoulder-Joint: Epiphyseal Abscess of the Humerus.

Anna M., æt. 17 years, was admitted to the Female Surgical Ward of the Episcopal Hospital, May 14, 1883. One year ago last May she fell down-stairs and struck her shoulder. She was unconscious for a short time, but was soon able to walk home. The arm did not become inflamed, and seemed to the patient well. Nine months after the fall she noticed pain in the shoulder, and an elevated papule formed near the joint, which was opened at the dispensary. This relieved the pain, but left a fistulous tract discharging healthy pus. She attended the dispensary until the 14th of last May, when she was sent into the house, Dr. Seltzer, the Assistant Surgeon on duty, having touched dead bone with the probe. After admission she had pain from time to time, gradually increasing in intensity until shortly before operation. Other free openings for drainage were made by Drs. Simes and Kelley. The probe detected an apparent sequestrum within the humeral head. Diagnosis, epiphyseal abscess.

The operation showed complete destruction of the joint, a carious and denuded humeral head with an abscess about the epiphyseal site containing a sequestrum. The glenoid cavity was denuded of cartilage and roughened. The portions of head and shaft, such as you see, were removed, while all the glenoid cavity was cut away with the gouge-forceps, except where the long head of the biceps was attached. Further details of the operation are unnecessary. The patient was practically well at the end of two weeks. Perfect quietude of the joint at the outset might have averted all subsequent trouble.

What was the condition here after the accident? Probably the bursæ and fibrous tissues surrounding the joint were involved, and the vascular epiphyseal cartilage was congested from the jar and injury of the fall. Conjestion of all these parts, instead of being relieved by complete functional rest of the articulation, with the local application of ice, leeches, etc., as appeared indicated, was kept up by the girl following her usual occupation of housework. Although in no sense markedly strumous, yet the tendency was in that direction. As the congestion increased, inflammation and suppuration were set up in the bursæ, the disease spread to the articulation, gelatinous arthritis with epiphyseal abscess supervened, notwithstanding the skillful treatment of my colleagues, who, *too late*, had the opportunity of treating the case.

Selections.

Treatment of Phthisical Night Sweats.

In the hope of obtaining a remedy which would permanently control the exhausting night-sweats of phthisis, without disturbing digestion or producing depression or unpleasant symptoms, Dr. C. M. Cauldwell (New York *Medical Journal*) made a series of experiments with the remedies usually used for that purpose with the following results. Each drug was tested in from fifteen to twenty-five cases:

Atropine, when given in sufficient quantity to check the perspirations, frequently produced annoying throat dryness, insomnia, anorexia or diarrhœa. Moreover, in the majority of cases where it agreed, the sweating would reappear as soon as the drug was discontinued. The amount prescribed in twenty-four hours varied from one-sixtieth to one-twentieth of a grain.

Ergotin, which was strongly recommended by Prof. Da Costa in a very interesting lecture, published in the MEDICAL NEWS for August, 1881, failed completely in my hands. It made considerable impression on the sweating, but, in almost every instance, produced either nausea, colicky abdominal pain, or some other form of gastro-intestinal disturbance. It was administered in gelatin-coated pills—from three to eight grains, in divided doses, being given in twenty-four hours.

Digitalis, even in large doses, although of great value in other respects, gave neither prompt nor encouraging results, so far as the perspirations were concerned. The solid extract was the preparation was used. From three to six grains were taken in twenty-four hours.

Aconite, recommended by homœopathic writers, greatly modified the sweats. It did this without producing unpleasant symptoms, but, as a general rule, it gradually lost its power, and the troublesome symptom returned. One-eighth of a drop of the tincture was given every hour or two, from ten o'clock in the morning till ten in the evening.

Paracoto bark, so highly prized by several English physicians, acted with remarkable promptness in a number of cases. In others it gave little or no relief. It had a tendency to constipate. When diarrhœa and sweating were associated, it was most satisfactory. The preparation employed was a fluid extract prepared by Parke, Davis & Co. From twenty to forty drops were given three times daily.

Salicin proved eminently unreliable, and apparently increased the debility of many patients when continued for more than a week. From one to two drachms were given in twenty-four hours.

Oxide of zinc, though increased to half-drachm doses, manifested but feeble and uncertain controlling power.

Picrotoxin, recommended by Dr. Ringer and Dr. Murrel, more nearly approached the ideal in view than any of the other drugs. It was prescribed for twenty consumptives suffering from profuse night-sweats. In seventeen of the cases the perspirations were entirely checked, or so far diminished as to produce no further debility or annoyance. Even when given in much larger doses than are ordinarily prescribed, it causes no disturbance of the nervous system or of the gastro-intestinal tract—in fact, produced no evil effect whatever. A single full dose of the drug at bed-time was generally sufficient to control the sweating for twenty-four hours. When one dose failed, a second was taken shortly after midnight.

The initial dose mentioned by Ringer and the English writers generally, is the one hundred and fiftieth of a grain. This was found much too small, and was accordingly increased to one-fortieth of a grain, and, in some cases, to one-twentieth of a grain.

Five typical cases are reported. In the first case, one-fortieth grain was given at bed-time, but it did not effect the purpose. The dose was doubled and continued for nine days, with almost complete cessation of sweating. Dose gradually diminished for six days more, when sweating entirely ceased;

drug stopped; no return of perspirations since last note—a period of two months—although the patient has not gained ground during that time.

Second case took one-fortieth grain at bed-time for two weeks, and then gradually diminished dose. Two months after ceasing the drug there was still no sweating; general improvement beyond expectation.

Case three, one-fortieth grain at bed-time for about three weeks. Sweating entirely ceased and two months after it had not returned, although the patient had steadily declined and was about to die.

Cases four and five were entirely relieved of this symptom by one-fortieth grain at bed-time. No return two months after. Much general improvement.

On the Action and Use of Diuretics.

FRANCIS H. WILLIAMS, M. D.

In the *Practitioner* for April and May, one of the editors, Dr. Brunton, discusses this subject in a very interesting and practical manner. The first portion of his paper is devoted largely to a discussion of the physiology of the kidney and the circumstances modifying a secretion of the urine.

It is thought that diuretics may influence the circulation in several ways: by raising the blood pressure generally, or by increasing the local blood pressure in the kidneys, in two ways, (*a*) by contracting the efferent vessels or the arterial twigs which pass directly to the capillary plexus, (*b*) by causing dilatation of the renal arteries, and thus increasing the supply of blood to the kidney. This they may do in more ways than one, for they may either paralyze the vaso-motor nerves of the kidney or act on vaso dilating mechanisms. Diuretics may also act on the secreting cells of the tubules, and may increase the amount of solids excreted by them.

It is known that greater action from diuretics may be obtained by combining them than by using them singly. "Thus we see that digitalis, instead of acting as a diuretic, may completely arrest the renal circulation, and stop the secretion altogether by contracting the blood-vessels. If, however, we can combine it with something which will produce dilatation of the renal vessels, while the general blood pressure remains high, we shall greatly increase the circulation through the kidney, and obtain the desired result. Experiments in regard to this were made by Grutzner with nitrite of sodium. He found that this substance increased the secretion of urine when the blood pressure was reduced to a minimum by curara; and he found that it also had this effect when the blood pressure was raised by imperfect respiration. When the vaso-motor centre was greatly stimulated, however, by allowing the blood to become very venous, the nitrite of sodium no longer produced any increase of secretion.

"All nitrites have an action on the blood-vessels more or less alike. All of them cause the arterioles to dilate, either by an action on their muscular walls or on the peripheral terminations of vaso-motor nerves. One of the commonest diuretics is spiritus ætheris nitrosi, which contains nitrite of ethyl. Sometimes this is combined with acetate of ammonia as a diaphoretic, sometimes with digitalis, broom or spirit of juniper as a diuretic. We have already seen that the action of the skin and of the kidneys are complementary, so that if we increase the secretion from the one we tend to diminish that of the other. At first sight, then, it might appear curious that we should use the same drug to increase the secretion of both. Yet there can be little doubt, from clinical experience, that nitrous ether is useful for both purposes, and the reason of its utility at once becomes evident when we remember that its action is strictly neither diaphoretic nor diuretic, but simply that of dilating the vessels, and consequently allowing the blood to flow freely in whatever direction it may be determined by other conditions. If by combining it with digitalis we can dilate the renal arteries, while those of the other parts of the body remained contracted, it is evident that we shall obtain a much freer flow of urine than we could by the administration of digitalis alone.

"If, instead of a diuretic like digitalis, which acts chiefly through the blood-vessels, we combine spirits of nitrous ether with salts of potassium, which act on the secreting structure, it is evident that we are likely to obtain from the increased circulation in the kidneys caused by the nitrites a much more plentiful secretion than the potassium salts alone would have produced.

"*Uses.* Diuretics may be employed either for the purpose of removing water or solids from the body. They are used,—

"(1.) To remove the excess of fluid met with in the tissues and serous cavities in cases of dropsy.

"(2.) To hasten the removal of injurious waste products and poisonous substances from the blood.

"(3.) To dilute the urine.

"In cases where the accumulation of the fluid depends on venous congestion, as, for example, in cardiac dropsy, those diuretics which act on the general vascular system, like digitalis, strophanthus, squill or erythrophleum, are most efficient, because they tend to remove the cause of the dropsy, as well as to assist the absorption and excretion of the fluid already effused.

"When the dropsy depends on the disease of the kidneys or liver, other diuretics should either be given instead of, or along with, digitalis or squill, even in cases of cardiac disease. Where digitalis or squill are not proving efficacious, the addition of a little blue pill greatly assists their action, though it would be hard to say in what way it does so.

"In dropsy depending on kidney disease, decoction of broom, and oil of juniper, and nitrous ether are amongst the most reliable diuretics, and copaiba in hepatic dropsy.

"Diuretics are used to increase the secretion of solids in febrile conditions and in cases of kidney disease where the excretion of waste products is deficient, and their retention threatens to prove injurious. In such cases nitrate and bitartrate of potassium, turpentine, and juniper and caffeine are useful.

"Diuretics are also used to increase the proportion of water in the urine, and thus to prevent the solids being deposited from it and forming calculi in the kidney or bladder, or even to dissolve again concretions which have been already formed.

"Water is, perhaps, the most powerful diuretic which we possess, although fewer experiments have been made with it upon animals than with the others. The diuretic action of water drunk by a healthy man is very marked, and it appears impossible to explain its elimination by a mere increase in blood pressure, whether general or local. It has, as we have remarked, the power of increasing tissue change, and thus multiplying the products of tissue waste which result from it, but it removes those waste products as fast as they are formed, and thus, by giving rise to increased appetite, provides fresh nutriment for the tissues, and thus acts as a true tonic.

"In persons who are accustomed to take too little water the product of tissue waste may be formed faster than they are removed, and, thus accumulating, may give rise to disease. If water be freely drank by such persons, the product of waste will be removed, and health maintained or restored. Thus many gouty persons are accustomed to take little or no water, except in the form of a small cup of tea or coffee daily, besides what they get in the form of wine or beer. In such people a large tumbler of water drunk every morning, and especially with the addition of some nitrate or carbonate of potassium, will prevent a gouty paroxysm. Still more numerous, possibly, is the class of people who rise in the morning feeling weak and languid, more tired, indeed, than when they went to bed. Now, fatigue may be regarded as the imperfect response of muscles and nerves to stimuli, and such an imperfection in their action may be due either to their imperfect nutrition or to the imperfect removal of the products of their waste. Many such people are well fed, they sleep soundly, and it seems almost impossible to believe that the fatigue which they feel in the morning can result from imperfect nutrition, more especially as one finds that after moving about, the languor appears, in a great measure, to pass off. It seems to me that this languor must depend upon imperfect removal of the waste products from the body, as we know that the secretion of urine, in healthy persons, is generally much less during the night than during the day. I am, therefore, in the habit of advising such persons to drink a tumbler of water before going to bed, in order to aid the secretion of the urine and of the waste products during the night.

"In some cases, though not in all, the result has been satisfactory and, possibly, might have been still more so had I added to the water the bicarbonate and nitrate of potassium, which, as I have already mentioned, is so useful in cases of gout."—*Boston Med. and Surg. Jour.*

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The Dry Diet Cure of Dyspepsia.

For fully half a century the medical profession has been acquainted with the advantages of a diet exclusively of milk in certain gastro-intestinal affections. It has been found that for irritable and inflammatory states of the digestive tube this regimen often furnishes the most favorable conditions for sustentation and restoration. Clinicians have given precise indications for its employ. Thus Gubler, in his Commentary on the Codex, very judiciously remarks that "milk agrees better with the irritable and congested stomachs of gouty and herpetic subjects, and those that have made excessive use of condiments and alcoholic stimulants, than with those who have been suffering from atonic dyspepsia, or who have tendencies to catarrhal or serous diarrhœa." "There are," he continues, "certain gastralgias and dyspepsias which are not benefited by milk diet."

At a recent meeting of the Société de Therapeutique, Paris, Dr. Henri Huchard gave an account of his experience in the treatment of several inveterate cases of dyspepsia, attended with dilatation of the stomach; after complete failure of the milk regimen, he changed his course, prescribing a dry diet and abstinence, as far as possible, from liquids. The result was most gratifying, all his patients getting well. What was characteristic of these cases was the aggravation of the gastric troubles on the ingestion of liquids. In all there was marked distention of the stomach, amounting in some instances to chronic dilatation; there were, besides, gaseous eructations, colicky pains with sometimes cardiac oppression, a furred condition of the tongue with often nausea and vomiting; but that which especially attracted attention was the supervention of attacks of suffocation or pain on the attempt being made to swallow any kind of liquid food. One of Huchard's patients—fortunately cured by abstinence from liquids—used to have prolonged fainting fits on taking a few spoonfuls of porridge. "Milk, broth, gruel, caused such extreme discomfort that the young woman preferred to go without food. For the constipation from which she was suffering—and it is noteworthy that patients afflicted with this form of dyspepsia are generally constipated—I ordered one day a glass of Hunyadi János, but the first mouthful caused such anguish of suffocation that she could take no more." Huchard, from whose article in the *Bulletin General de Therapeutique* (August 30th) we quote, gives to Chomel the honor of having first noted and clearly defined this "dyspepsia of liquids," although older authorities have remarked in cases of feeble digestion that the ingestion with meals of considerable quantities of liquids determines distention of the stomach and diminution in the secretion of gastric juice, while it is a saying of Beau that "good stomachs belong to those who drink little, and who drink nothing at meal time." Chomel described a peculiar swashing sound (*bruit de clapotment*) heard in the stomach, and generated by the presence in the cavity of that viscus of an excess of liquids and of gas, as being pathognomonic of this affection. The *swashing* noise is heard when the patient is suddenly turned from one side to the other, or when he otherwise changes his position. A good way, and one which Chomel recommends, is to place the patient before you in a standing posture, and with both your hands on the sides of his abdomen to give several abrupt lateral impulsions.

Having observed that in this form of dyspepsia the stomach digests solids much better than liquids, Chomel formulated the dry diet treatment, which consists in the utmost possible abstinence from liquids; the patient not being allowed to take more than one small cup of his ordinary drink during his repast. Full baths of lukewarm water and lavements were permitted in ordinary to maintain the requisite fluidity of the blood. An interval of at least eight hours between the morning and the afternoon meal was enjoined; if the time of breakfast was fixed at eleven A. M., the dinner could not be had till seven P. M. Soups of any kind might be taken, provided they were made quite thick. To these soups were added bread in small quantity, roast, boiled, or broiled meats, warm or cold, fish, eggs, legumes, on condition that sauces should be used with them very sparingly. Fruits were permitted with moderation, except such as are very juicy, *e. g.*, melons, grapes, peaches. etc. With this form of dyspepsia such foods as are finely divided and pulverulent (the powder of meat, for instance) agree very well; raw oysters on bread, or scalloped oysters are unobjectionable dishes. For the constipation which afflicts these patients, those purgatives should be selected which present themselves in a solid form.

Huchard cites instances in the practice of his eminent master, where, under the influence of this regimen, all uncomfortable dyspeptic and reflex symptoms disappeared, and in which health was afterward enjoyed, except at such times as the person through indiscretion transgressed by indulgence in some favorite beverage; even trifling indiscretions being sometimes followed by oppression, colicky pains, palpitations, *glou-glou* sounds sufficiently loud to attract the attention of standers-by, etc. One of these patients could not take a glass of cold water of an evening without suffering the next morning from dryness of the mouth, flatulent distention of the stomach, and suppression of urine.

According to Huchard, then, abstinence from liquids, or the "dry diet cure," to which Fonssagrives has given the name of *xerophagia* (Gr., "I eat dry food"), produces excellent effects in certain dilatations of the stomach, in atonic dyspepsias, in the dyspepsia of liquids. He thinks also that this kind of regimen is applicable to other affections characterized especially by excess of arterial tension—to atheromatous patients, to individuals affected with interstitial nephritis, aortic affections, certain cases of angina pectoris, with considerable elevation of vascular pressure, and to persons predisposed to divers hemorrhages, cerebral congestions, etc.—*Boston Med. and Surg. Jour.*

Notes of Four Cases of Varicose Veins Treated with Hamamelis.

BY B. F. NICHOLLS, M.D.

IN April, 1883, I read in the *Philadelphia Medical Times*, No. 402, an article by Dr. J. H. Musser, on "The Treatment of Varicose Veins with Hamamelis." A few days after I read this article, Mrs. W., a married woman, age 35, called at my office on account of swelling and varicose veins of the left leg. On examination I found the left leg considerably swollen, with here and there large, dark spots, which, on pressure, were quite soft and somewhat tender. These spots were as large as eggs, and situated on the inner aspect of the calf. The right leg was all right. Mrs. W. was three and a half months pregnant with her fourth child. She had always experienced trouble with the veins of her left leg while pregnant, beginning about the third month of pregnancy and continuing till delivery. In her former pregnancies her leg had been treated by bandaging, which afforded some relief, but her distress was so great that at times she was compelled to seek relief by lying down. I concluded to try the hamamelis, and ordered her to take one teaspoonful ext. hamamelis four times a day in a wineglassful of water. She began to improve at once, and continued to take the drug till delivered. Her leg gave her no trouble, the swelling and varicose veins disappearing altogether. Mrs. W. is again pregnant, and the varicose veins appeared again at the usual time. She is now taking hamamelis with success.

The second case is a young colored man, age 30; has had varicose veins for two years. He got some relief from bandaging, but relief was only temporary. Last November he came to my office with a ruptured vein, considerable oozing of blood. Put on a compress and ordered hamamelis, teaspoonful every three hours. Saw him next day, took off compress, no bleeding. Continued hamamelis. Did not see him again for two months, when he reported at my office well. Have seen him several times since, and he has no return of his varicose veins.

The third case was a woman, age 50 years; was a washerwoman; had had varicose veins for a long time; did not remember when they first came; was treated by adhesive strips and bandage, but always returned after the bandages were left off for a short time. I gave her hamamelis, two teaspoonsfuls three times a day in water. She got entirely well in two months, and has remained so ever since.

The fourth case, a woman, age 47 years, sent for me May 10, 1883. I found her sitting in a chair, bent forward till her face was between her knees, her hands clasped firmly together, her legs stuck out in front, covered with wet cloths. I do not think I ever saw in my life such a picture of utter hopelessness as this patient. When I approached her, she looked up, and in the most piteous voice exclaimed, "For God's sake, can you do anything for me?" On examining her legs, I found the cause of all her trouble: both legs were a mass of ulcers from the knees to the ankles. From the ulcers was oozing a clear fluid, which soon turned the cloths black. Situated a little behind the knee were several bunches of varicose veins. I thought I had found the original trouble. On inquiry, she said, at first, some five years ago, her leg was full of large veins and considerably swelled, and the ulcers came afterward. I put her on extract of hamamelis, a teaspoonful every three hours, and told her to keep cloths wet with hamamelis applied to the leg. She recovered in two months, and all she has left to remind her of her former trouble is considerable discoloration on the anterior aspect of her legs. She walks all about the city, experiencing no trouble whatever.

The extract of hamamelis used in all my cases was procured at Bullock & Crenshaw's.

In conclusion, I would say that I consider hamamelis almost a specific in varicose veins from almost any cause. I did not find it disagree in any way with my patients. It is not at all unpleasant to the taste.—*Medical Times.*

London Letter of Medical Record.

DESPITE the prophets of evil, the dreaded cholera has not yet visited us. All possible precautions have been taken to prevent the introduction of a case into the kingdom. Steps have been taken to prevent cargoes of rags from Marseilles and other places from being landed at British ports, in cases where there is any possibility of their bringing infection.

With regard to the pathology of cholera, an interesting memorandum has just been issued on the subject by Dr. T. R. Lewis, Assistant Professor of Pathology at the Army Medical School, Netley. Dr. Lewis has lately visited Marseilles for the purpose of studying the subject practically. He criticises Koch's published reports rather closely, but the most startling point in his paper is the statement that comma-shaped bacilli have been found by him frequently in the salivary secretions from the mouths of healthy persons. This is evidently a very important observation, and should it be confirmed by further investigations, will go far to wholly discredit Koch's views on the bacillar origin of cholera. Dr. Lewis is a skilled microscopist and a laborious and patient worker in the field of pathology. Dr. Lewis has also studied cholera practically in India, where he served many years as an army surgeon. His former studies on the *filaria sanguinis hominis* did much to elucidate the pathology of these organisms, and are probably known to many of your readers.

While the story of the Greely Arctic Expedition is still fresh in our memories, another horrible tale of cannibalism has just come to light. Three men and a boy going from England to Australia in charge of a yacht, were shipwrecked and drifted about in an open boat for nearly four weeks. As a last resort they killed the boy, and after drinking his blood ate his flesh. His heart and liver were devoured while still warm. It is right to state that the boy was apparently dying. They continued to eat his flesh for several days, when they were picked up by a passing vessel. There is no doubt whatever as to the facts, as the men confess what they have done, and have been arraigned for murder. None of the injurious effects alleged to occur from cannibalism appear to have followed in this case, as, despite their prolonged sufferings, the men seem now to have recovered a large measure of health. Much sympathy is expressed for them in their present position.

Hospital Saturday has realized more than was at first thought, and the total will be more than last year. The workshop contribution is still very small.

The Council of the Health Exhibition have handed £4,000 to the Lord Mayor for distribution among the London hospitals.

Mr. Netten Radcliffe has just died after a long illness. He was well-known as a sanitary worker, and was for some time assistant medical officer to the local Government Board.

The New York Academy of Medicine.

Stated Meeting, October 2, 1884.

The President called upon several gentlemen, not specialists in diseases of the throat, to discuss the paper, because of their experience with certain points contained in it. He first said, with regard to his use of the bicarbonate of soda in quinsy, mentioned by the author, that he had been in the habit of seeing a few cases of this disease each year, and until some years ago they almost invariably ended in suppuration; but since he had begun the local application of bicarbonate of soda, in not a few of the cases the disease was aborted. A marked instance of the kind occurred in a patient seen with Dr. Bosworth—a gentleman of eminence in literature, who was suffering greatly from threatening abscess. The next morning after the use of the remedy he was found at the breakfast-table.

Dr. Douglas would agree with the author on most points, but there were a few to which he must take exception. He would agree with him, for example, that quinsy is a manifestation of rheumatism, or, especially, of gout, and the treatment which he had employed for this affection was largely that used by the President, namely, bicarbonate of soda. At the same time he gave the ordinary remedies against gout. He had found the gargle and spray of bicarbonate of soda also useful in cases of enlarged tonsil, but one of the most beneficial remedies for this class of cases was a powder composed of one part of menthol to a hundred parts of sugar of milk. He would not always resort to the knife for the removal of the enlarged tonsil; it could be slowly, but surely, reduced in size by the persistent use of a powder composed of salt, camphor, ammonia, and sugar of milk.

Dr. F. H. Hamilton was inclined to agree with Dr. Bosworth that the enlarged tonsil should be removed by the knife; yet he had often observed that the enlarged tonsil of childhood disappeared before the twentieth year. He supposed the author, when he said there was no danger connected with the operation, meant not in the acute or engorged stage, and not in those of the hemorrhagic diathesis. The question had been raised whether all or only a part of the tonsil should be removed: he should say all that the knife would include.

Dr. Jacobi believed that the only efficient treatment for the enlarged tonsil was removal; applications would not reduce its size, and where they had apparently done so the reduction was due to some other cause. The enlarged tonsil might remain stationary and appear smaller after the lapse of years, because of the growth of the fauces. As to the danger of hemorrhage, there usually was but little loss of blood, but it might be profuse from cutting into the soft palate—an accident which could not always be avoided. The most efficient means for stopping hemorrhage when it occurred was digital compression, applied, perhaps, for an hour or more. He could not agree with the author's view that follicular tonsillitis was an essential fever; he looked upon it as a local disease. What Dr. Bosworth took to be an essential fever was probably diphtheria, for cases of diphtheria were often overlooked or mistaken for some other affection. It was a great mistake to suppose that every patient sick with diphtheria must necessarily die; there were many mild cases which went unrecognized, and which were all the more dangerous for that reason, as they were the more likely to spread the disease. Dr. Jacobi laid particular stress upon this point because of its importance to the public health.

Dr. Weber had not yet seen a case which went to substantiate the view that a phlegmonous inflammation around the tonsils was due to the gouty habit. He had found it most frequently in patients of poor general health.

The President remarked that guaiacum had once been strongly recommended in the treatment of quinsy, on account of the supposed gouty origin of the affection; but he had not obtained the results with it which he had been led to anticipate from reading certain articles in the medical journals.

Dr. Post thought the best treatment for the enlarged tonsil was extirpation.

Dr. Hamilton had found the external application of ice or snow the best means for checking hemorrhage after removal of the tonsil.

Dr. Fruitnight had aborted some cases of quinsy by the administration of the tincture of aconite.

Dr Jarvis again called attention to a distinction which he had made between the soft and hard, or indurated enlarged tonsil, the latter being found in the syphilitic. If the scirrhous tonsil were cut, it would surely give rise to hemorrhage, and might result fatally. He employed the knife in the removal of the soft, enlarged tonsil, and the cautery or snare in the removal of the indurated tonsil. He did not think any more of the tonsil should be removed than was necessary, for it doubtless served some physiological purpose, as the lubricating of the fauces and protecting the carotid artery.

Dr. Brandeis said he believed in the Darwinian theory of the survival of the fittest; the tonsils had survived some thousand years, had fulfilled some physiological purpose, and he doubted not that they performed their function well, whatever it might be. But the tonsils, like other structures, were liable to disease, and diseased tonsils might be worse than no tonsils at all, and therefore he believed they should in proper cases be extirpated. He then pointed out the advantages of the tonsillitome over the knife in certain cases. Contrary to the experience of Dr. Bosworth, he had found hemorrhage in young subjects rather than in the adult, although not extreme. To prevent hemorrhage, he allowed the patient to sip a solution of tannic acid, and if necessary, he applied pressure. Dr. Bosworth's description of quinsy corresponded with that in Ziemssen's "Encyclopædia," there called peritonsillitis, but Dr. Brandeis could not accept the view that it was always an inflammation of the peritonsular sheath. He recommended aconite and the ammoniated tincture of guaiacum in its treatment, until an abscess should have formed.

Dr. Corning had arrested a severe hemorrhage after tonsillotomy in one case by the use of his carotid compressor.

Dr. Bosworth, in closing the discussion, said, with regard to the possibility of reducing the size of the tonsils by astringents, that he believed it could not be done. Their size, however, might be reduced in the young, in whom they were in a state of chronic inflammation, by the new tissue undergoing contracture. This would account for the diminished size of the tonsils on reaching adult life. As to hemorrhage in the young, it was only an oozing; considerable hemorrhage only occurred in the adult. That tonsillotomy was not dangerous was apparent from the fact that in all medical literature not a single fatal case was recorded. The cases in which the carotid artery had been wounded were excepted; this accident could never occur in the hands of a surgeon. In arresting hemorrhage with the actual cautery, the iron should be applied from above downward, that it might not be cooled by the flow of blood before coming in contact with the bleeding vessel. He regarded peritonsillitis a very good name for quinsy, but he did not believe there was a peritonsular capsule proper. As to the tonsils performing their function, he did not think they existed in the normal state, but that they were the result of disease.

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A Case of Absence of Vagina, Uterus and Ovaries in a Female.

Reported by John Frissell to the Medical Society of West Virginia.

ALTHOUGH I have been cognizant of many malformations and deficiencies of both the male and female organs of generation, the following is a case, the like of which has never before come under my observation, or, so far as I know, the observation of any one in this region of country:

Mrs. ——, aet. 33, married nearly a year, called on me the first of last June, 1883, to be relieved, if possible, of a peculiar trouble that annoyed her greatly. At her request I made a careful examination of her genital organs, so far as I was able at that time. In external appearance, the mons veneris, the external labia, the nymphæ, clitoris, orifice of the urethra, large enough to admit the forefinger, and hair covering the parts, were all natural. Below the dilated orifice of the urethra there was a small sulcus, but there was a perfect closure of the entire region that should have formed the external opening of the vagina. She had never menstruated, but did not think much of that, for she supposed some girls were troubled in the same way. Her sexual appetite she thought had been about the same as that of other girls. The breasts were not large, but appeared normal. Her general appearance was that of a perfect woman. Such was the extent of the examination at that time.

On the morning of the 2d of September, 1883, she called again at my office, in company with her husband, determined to have some operation performed that would relieve her of her malformation, for by this time she had become disgusted with her condition. I sent her to the hospital, and agreed to go up in the afternoon to examine her carefully and see what could be done. I prepared myself, and in company with Dr. Dickey and my son, Dr. C. M. Frissell, went to the hospital, and had her placed upon a table in position for an operation. After the parts were well lubricated, I introduced a catheter into the bladder, and the fore and middle finger of my left hand into the rectum. Through the wall of the rectum and the thick layer of cellular tissue I could feel the catheter in the bladder, but could feel nothing of any solid body that I thought was the uterus or its appendages. I saw the only way to make a vagina was to get a vaginal opening through the skin in the perineum as natural as possible, separate the cellular tissue between the bladder and the rectum, and then extend, dilate and expand till the opening was sufficiently large. After cutting out enough of the skin to make about a natural-sized opening for the vagina, thus fairly giving admission into the cellular tissue, I commenced to separate the layers with the forefinger of my right hand, holding the perineal tissue with the thumb of my left hand, the first and second fingers in the rectum forming a floor on which to work. With the catheter above in the bladder, and my fingers below in the rectum, I could evenly direct my way about equidistant between the organs, and I succeeded in making a division as far as I could reach with the forefinger of my right hand. I then placed in the opening a rectal dilatior, and gradually spread the parts open until there was ample room for dilaton and contraction. At this stage of the operation I placed in the opening a two-bladed vaginal speculum, and through it passed in pledgets of borated cotton saturated with carbolic acid water, with a string attached to each, till the cavity was well filled. There was a little bleeding from a small artery on the outer margin of the opening, but aside from that, there was no trouble from hemorrhage. The woman complained very little of pain during the operation, and in fact suffered but little throughout. At her own request, no anæsthetics had been given. The pledgets of cotton were changed every day or two for a week: and after that, glass dilators were substituted—of the kind used by Sims and Thomas. In about twelve days she left, well satisfied with the result of the operation. I gave her two sizes of dilators to take with her. She was anxious to go home, but said if everything did not work right she would return. She has has not since made her appearance.

Had she remained single, as she ought to have done, her calamity would have made no one the wiser. Cases of this character may occur oftener than we suppose, not being known because of no occasion to make them public. The trouble of this woman increased after her marriage, and prompted her to determination to submit to treatment that should place her more in accord with her change of circum tances.

International Medical Congress.

[Eighth Session, held in Copenhagen, August, 1884.]

Section of Surgery.—*Operative Treatment of Malignant Affections of the Rectum.*—Professor Esmarch (Kiel) read a paper on this subject in which he laid down the following propositions: 1. In the treatment of cancer of the rectum the same principles hold good as in the treatment of cancer of other parts of the body. 2. Extirpation should be as early and as complete as possible. 3. The more the surrounding healthy parts are removed with the diseased the greater reason is there for hoping that recurrence will not take place at all, or will be long delayed. 4. Experience teaches that early and thorough extirpation may be followed by permanent recovery (Dieffenbach, Schuh, Billroth, Rose, Nussbaum, Kocher, Czerny, Bardenheuer, Holmer, etc.). 5. As, in cancer of the rectum, the lymphatic glands are secondarily affected at a comparatively late period, operation may be followed by permanent success when the disease has lasted some time and has become extensive. (Czerny observed recoveries which lasted above four years, although the cancer had been present three or four years). 6. The prognosis in regard to return of the disease is good in proportion to the slow development of the new growth, the delay in the appearance of distressing symptoms and the completeness of the operation. 7. The simple cylinder-celled cancers (destructive adenoma and adeno-carcinoma), which proceed from the more superficial layers of the mucous membrane, generally give a better prognosis than the forms with small alveoli and the gelatinous forms, which more rapidly enter the deep submucous layers. The greater the disposition to gelatinous degeneration of the cancer, the more malignant, usually, is its course. 8. Extirpation of a cancerous nodule from the wall of the rectum is sufficient only when the nodule is well circumscribed and movable, and when only a part of the wall of the rectum or of the anus is implicated. 9. In all other cases amputation of the rectum beyond the points of the growth is indicated. 10. The entire rectum, as far as the sigmoid flexure, may be removed with good result. 11. The principal dangers of the operation are —*a*, hemorrhage; *b*, acute, purulent and ichorous inflammation of the connective tissue (septic lymphangitis, retroperitonitis and peritonitis). 12. These dangers are to be combated: *a*, by very careful hæmostasis during the operation; *b*, by very careful primary disinfection and provision for the free escape of the secretions of the wound (by drainage and the avoidance of cavities. 13. In amputation of the rectum high up, opening of the peritoneal cavity is unavoidable; but peritonitis does not generally follow if the opening be at once closed by suture under strict antiseptic precautions. Drainage of the peritoneal cavity is indicated only in exceptional cases (for instance, where considerable soiling of the peritoneum, during the operation, can not be avoided). 14. The progress of operative skill has essentially diminished the dangers of the operation, the death-rate having fallen from fifty to twenty per cent., and even lower; and it is to be expected, with confidence, that this proportion will become even more favorable, as in ovariotomy, hysterotomy, etc. 15. The functional disturbance following amputation of the rectum is slight in comparison with the distress caused by the cancer. Incontinence of fæces is not complete, especially when the external sphincter has not been removed. Systematic cleanliness and the use of a suitable apparatus for closure commonly relieve the difficulty. 16. Resection of a portion of the intestinal tube in its whole circumference, followed by suture of the two ends of the intestine, is not to be recommended, since the lower portion of the intestine generally sloughs. It is better to remove the mucous membrane of the lower end, preserving the external sphincter muscle, and to fasten the upper end of the amputated rectum by a few sutures to the lower edge of the wound. 17. Extirpation of cancer of the rectum is, in all cases, rendered easier by dividing the posterior wall of the gut as far as the coccyx. Removal of the coccyx is generally unnecessary.

Prof. Verneuil (Paris) had done his first colotomy thirty years ago and his first extirpation fifteen years ago. He at once found that removal of the disease was impossible. The patients objected or refused in many cases to allow the performance of colotomy. He then found that division of the cancerous stricture removed all complications and gave all the other advantages of colotomy. The whole length of the stricture must be split. The incision was made from the tip of the coccyx by a thermyl cautery plunged in to meet the tip of the finger hooked above the stricture. Through this channel, by a cannula if necessary, an ecraseur chain was passed, and the rest of the division was completed. No blood was ever lost, and the symptoms at once ceased. No deaths followed.

Prof. Trelat (Paris) denied the advantage claimed for the rectal extirpation, and pointed out the rapidity and malignity of recurrence. He quoted one case which, he said, was the type of many, where the removal of the cancer early, and when extremely small, was followed by a speedy and malignant recurrence. In one case he found, though the operation was normal and extraperitoneal, that had the small intestine in the artifical anus, and the patient died. He laid stress upon the color of the intestine as the only point of recognition that did not deceive, being white or greyish white.

Mr. Sampson Gamgee (Manchester) preferred the operation of inguinal colotomy, while admitting that other operations had their indications, and that no one could prevail to the exclusion of others.

Mr. Marshall (London) mentioned some cases where sinuses had been kept open in the peritoneum by tangle-tents.

Prof. Volkmann (Halle) observed that colotomy, even in Mr. Bryant's hands, was a very dangerous operation, and that the statistics of extirpation were better than those of colotomy, according to Bryant. Cancers, he said, varied in rapidity and malignity according to their locality; and in the rectum they had little tendency to infiltrate early and recur soon. Even in desperate cases he had had no return under long periods; in one case not for ten years. The results of excision of the rectum had improved, and would go on doing so with improved methods. Asepsis and disinfection were normally powerful when the peritoneum was not opened, but when this was opened the dangers were great and cleansing difficult. But, dangerous as extirpation was, it was not as bad as colotomy; and recurrences were painless and not troublesome. The comfort of patients was also infinitely greater than it was after colotomy, discomfort being hardly felt, save in diarrhea. The selection of the cases, he went on to say, was also important; and he did not operate in any case where he could not reach the upper end of the disease by bimanual exploration under anæsthesia. The incision should be both forward and back to the coccyx, the anus alone being left; and no attempt should be made to unite the upper with the lower end, which should be stitched well down and the cavities at the sides well drained.

On Albuminuria.

[Read in the Section of Medicine by Sir Andrew Clark, Bart., M. D., Senior Physician to the London Hospital.]

On this occasion it is not my intention to deal with the complex problems raised by questions concerning that disturbance of physiological conditions which issues in the appearance of albumen in the urine. I shall confine myself to a much humbler task, and, regarding the subject from a merely clinical standpoint, and avoiding those aspects of it which have been already much discussed, I shall pass beyond empirical experience no farther than may be necessary to make plain a few of the problems ripening for physiological pathology to solve.

In all preceding discussions about albuminuria the speakers seem to me, if I am not in error, to deal with the presence of albumen in the urine as if it were of renal origin; or at any rate they neither sufficiently distinguish renal from non-renal albuminuria, nor explicitly set forth, if they are known, the grounds of discriminating between them.

To avoid confusion in the course of the discussion it would, therefore, seem necessary to recognize the existence of non-renal albuminuria, to specify in cases of this sort the sources of the albumen, and to set forth, so far as our present knowledge will permit, the means whereby renal may be distinguished from non-renal albuminuria.

In a good many women, for a few days before and for a few days after menstruation, the urine, free from blood-discs, leucocytes or pus, contains, sometimes continuously, sometimes intermittently, small quantities of albumen. In women guilty of habits of secret personal impurity a serous fluid is sometimes secreted into the vagina, and afterward, mixing with the urine, is found therein, responding in the usual manner to the tests for serum-albumen.

In some young men, excited by sexual desire and denying it indulgence, there is secreted from the urethra or its adjacent glands a fluid which, mixing with the urine, yields to the application of the ordinary tests evidence of the presence of serum-albumen.

In eczema of the bladder, in the early stages of villous tumor and in the venous congestions of aged men, albumen transudes in the vesical cavity, mixes with the urine, and may be readily mistaken for albumen of renal origin.

In the case of the late E. D., about whom I was consulted for renal disease, the albumen in the urine was proved to be independent of renal disorder, and to have its origin in a small, delicate villous tumor of the bladder.

I am sure that illustrations of non-renal albuminuria could be added to by others present at the discussion better than by me; but I have adduced from my own experience a number of examples sufficient to warrant further investigation and to justify me in bringing the subject to the notice of the Section.

And now arises the question: In what way can we distinguish the non-renal from the renal albumen? I suppose that we shall be very near the truth if, in a given case of albuminous urine, where there are no constitutional evidences of renal disease, where the urine is of normal constitution *plus* albumen, and where some local cause adequate to its production exists, we say that the albumen is non-renal.

But we shall not be certain. For any one of the specified local causes may exist without albumen necessarily passing into the urine, and the kidney may yield albumen to the urine without any material alteration of that secretion. In such possible, but rare cases, one must critically watch the state of the constitution, which rarely fails to give early information of renal degeneration.

Of the non-renal forms of albuminuria occurring in leucorrhea, cystitis, catarrh of the ureters, and other affections in which histological elements are always present in the urine, it may be said that their diagnosis is attended with no serious difficulty; but in such cases one may easily forget that the existence of an albumen of non-renal does not exclude the existence of an albumen of renal origin, and indeed that not unfrequently they occur.

I pass now to the subject of cases of renal albuminuria and divide them provisionally into those of functional and those of structural origin. So much has been already said, and so much will be again said, at the meeting concerning structural albuminuria, that I will leave its discussion entirely in the hands of others more competent and also more eager to deal with it than I am. For, to say the truth, I think that in the present state of knowledge the discussion of structural is of less interest and of less importance than the discussion of functional albuminuria, to which I shall confine the few observations I have to offer.

To the use of the term "functional" many general and some just objections will be raised. It will be urged that every lesion of function must have its correlative lesion of structure, and that to use any term which appears to deny this fact, or fails to give it at least implicit recognition, is at variance with the principles of science, and constitutes a backward instead of a forward movement in knowledge. To the logical coherency and force of this argument I make no objection, but I contend, as often before I have contended, that mere logical integrity is not, in such matters, the final test or measure of truth, which in the present state of knowledge can sometimes be reached only along lines which seem, as we understand them, at present to be illogical. And in no way could this paradox be better illustrated or more strongly enforced than by a critical study of what is called functional albuminuria. It is, I venture to say, certain, that in the kidney, giving rise to albumen in the urine, there occur states—mechanical, physical, chemical, and, in a provisional sense, vital—which are neither tangible nor visible, which not only can not be estimated, but are even, by the most delicate instruments of research, incapable of recognition; states which may often come and go, disordering function and disturbing health, and yet leave no abiding marks of their presence and actions. Such states are different in manifold ways from organic states, and must be so named as to ensure recognition of their fundamental differences. For this is not all that has to be said concerning these functional states. We are so much concerned with anatomical changes, we have given so much time to their evolution, differentiations and relations, we are so much dominated by the idea that in dealing with them we are dealing with the disease in itself, that we have overlooked the fundamental truth that these anatomical changes are but secondary and sometimes the least important expressions or manifestations of states which underlie them. It is to these dynamic states that our thoughts and inquiries should be turned; they precede, underlie and originate structural changes; they determine their character, course and issues; in them is the secret of disease, and if our control of it is ever to become greater and better, it is upon them that our experiments must be made.

I say therefore that those functional affections of the kidneys, attended by the presence of albumen in the urine, are of the utmost importance to the better understanding of organic disease, and deserve a more prolonged and critical study than they have yet received.

Of the forms of functional albuminuria with which I am practically acquainted, I shall mention four as worthy of further consideration. They are the nervous, the oxaluric, the hepatic and the gouty.. I leave on one side the functional albuminuria of cold and the various forms of peptonuria connected with indigestion.

The first two forms occur chiefly among adolescents; the latter two are found for the most part among elderly people.

I am as sure as I can be about anything incapable of demonstration that all strain of nervous system, especially under emotional excitement, is capable of producing functional albuminuria. Among twenty men entering a competitive examination no one is albuminuric; at the close of the examination, lasting a week, three are found to have albumen in the urine. A gouty man with moderately healthy urine attends a political meeting and delivers an exciting speech.

Soon afterward a little albumen is found in the urine, but in a day or two it disappears. In a fortnight he delivers another speech in circumstances of great excitement, and the albumen reappears in the urine.

The most numerous illustrations which I have met of functional albuminuria have occurred in young men aged from eighteen to thirty, whose urine was of high density and loaded with oxalate of lime. To put the matter in another way, I have not very often followed carefully a case of "oxaluria" with high density and an excess of urea, without finding sooner or later traces of albumen in the urine. This is by far the most interesting and instructive of cases, and I regret that the time allotted to such communications as this will not permit me to consider them in detail.

Illustrations of the hepatic group occur for the most part in middle-aged men. There is congestive enlargement of the liver with catarrh; the portal system becomes loaded; the skin is dry and icteric; and then, without any appreciable change in the urine beyond the presence of a little bile, albumen appears in it. With the subsidence of the hepatic trouble the albumen disappears from the urine.

Temporary albuminuria in gouty persons whose kidneys are as yet structurally unaffected, is common enough in certain conditions. When the balance between ingoing and outgoing is disturbed, when the blood becomes loaded with excrementitious stuffs, when there is increasing vascular tension, with restlessness, feverishness, dry skin and headache, then as a common rule traces of albumen appear in the urine.—*British Medical Journal.*

The Local Treatment of Laryngeal Tuberculosis.

Dr. Gouguenheim (*Bul. Gen. de Ther.*, May 30, 1884) lays down some general rules for the local treatment of tuberculosis of the larynx. He divides the treatment into: 1. The use of medicated solutions. 2. That of solid applications, or crayons. 3. That of the galvanic cautery. 4. Surgical operations—partial avulsion, tracheotomy, or extirpation of the larynx. The use of crayons he does not approve of, believing it to be more defective, less convenient, and more difficult to support than the use of fluid applications. He makes an exception of iodoform, but prefers to use even that on a small sponge with a holder. He gives the following general rules for the use of the galvanic cautery: 1. When dysphagia is due to increase in the size of the epiglottis, the weekly application of the cautery at a few points brings about a rapid and lasting benefit. 2. When dysphagia is due to swelling of the folds and of the arytenoid region, cauterization is more painful than in the former case, and is not followed by the same good results. 3. When the vestibule and superior vocal cords are involved, the cautery is well borne, but the effects are not so good as in the first case. 4. When the larynx is the seat of numerous vegetations, cauterization is absolutely indicated, and should always be preferred to avulsion. 5. When the inferior vocal cords are thickened and covered with vegetations, they may be cauterized with advantage, but only if they are movable and if there is no stenosis. 6. When the vocal cords are approximated, and can not be separated, and stenosis exists either by spasm of the abductors or paralysis of the dilators, there is danger in carrying the caustics into the interior of the larynx; but this danger is less than that which follows fluid applications. As to the avulsion of vegetations, he believes it to be bad practice. It is painful, and creates wounds which may serve as points of inoculation. He much prefers the galvanic cautery. He enumerates the indications for tracheotomy as follows: 1. With a tuberculous patient, where the lesions in the lungs are not extensive, the general state is satisfactory, and the temperature nearly normal, when frequent attacks of suffocation are caused by the laryngeal stenosis. 2. The existence of extensive pulmonary disease does not contraindicate the operation, if the temperature is normal and the digestive functions are undisturbed.

Of the relief obtained by tracheotomy in this affection of the larynx, Dr. Morrell Mackenzie speaks in the following words: "If there is much dyspnœa, tracheotomy should be performed, but the effect of the operation is, as a rule, only to prolong a miserable existence. I can not recommend the operation as in any sense curative, and quite agree with Dr. Solis Cohen, who remarks that 'it can not be curative, either directly or indirectly, and is only jutifiable to ward off asphyxia, from œdema, tumefaction or impaction of necrosed cartilage.' He goes on to say that 'in opposing tracheotomy in laryngeal phthisis, except when there is urgent dyspnœa, I differ entirely from my accomplished pupil, Dr. Beverly Robinson, who observes that in order to obtain these latter (*i. e.*, favorable results) it seems indicated not to delay the operation, but, rather, to perform it so soon as the nature of the disease is obvious and other means appear of no avail.'"

Emmet's Operation for Lacerated Cervix.

In a letter to Dr. Joseph Taber Johnson, of Washington, from Dr. Thomas Addis Emmet (Class of 1850), recently published in the *Journal of the American Medical Association*, the writer says:—

I wish I knew how many times I have operated for closing a lacerated cervix; certainly not less than 500 or 600 times in the past twenty-two years. I have never regretted doing the operation, and have often wished that I had performed it. I believe that I have kept many a woman out of the lunatic asylum, and saved many a life from phthisis. I have never lost a patient from or after the operation. Quite a number have had more or less cellulitis after the operation, which could generally be traced to some imprudence, or to an error in judgment on my part in operating before the case was properly prepared. I have known of three cases where serious hemorrhage has occured after the operation—one in my private hospital, where oozing went on for several hours after the operation, and was stopped by a deeper stitch; a recent case in my service at the Woman's Hospital, coming on about two weeks after the operation. It was a very serious case, and was stopped with difficulty by the use of the tampon. The third case was in Dr. Pallen's practice, several years ago, when the bleeding had been going on for some two days after the operation, and the woman was very nearly losing her life. I was called in, and stopped the bleeding by untwisting the sutures and introducing another low down. I do not believe the operation has anything to do with causing sterility. When a woman has remained sterile afterward, it has been due to the existing cellulitis, or to the damage done by the previous inflammation including the tubes. I take great care in preparing my cases for the operation, and pregnancy has occurred so often after I have operated that I am fully convinced my view is correct. I do not recollect of more than three or four cases having returned with a second laceration, and have examined a large number of old patients where a fresh laceration did not occur, and some have borne a number of children after the operation. I only wish I had the data to give you, but I have been too busy a man to keep them, and can only give my impressions.

In writing on this subject you may do much to correct the general abuse into which the practice of the operation has fallen. Everybody is performing it, and very few are doing it with any purpose except to close a fissure. The operation should never be done without there are marked symptoms calling for it, and the case should be properly prepared before it is done; for, until the cellulitis has been removed, which causes the parts to roll out, it is impossible to decide, except in a very few cases, if the operation is needed or not. A large fissure will sometimes disappear as the parts roll in again, as the cellulitis clears up. Where there are marked reflex symptoms, very few clear out properly the dense tissue from the angles; and I operate on a large number of cases with marked benefit when the operation has already been done by some one else, and the patient had been disappointed in the result.

Applications of Electricity to Affections of the Stomach.

Dr. Apostoli communicaated to the Congress at Copenhagen (*Revue Medicale*) his experience with the continued and constant current, applied to the pneumogastric, upon the stomach, to relieve and cure certain nervous affections manifestly allied to hysteria, such as epigastralgia, gastralgia and vomiting. For some time past he has extended his observations to the gastric troubles of pregnancy and of phthisis. All the dyspepsias and all the reflex or purely nervous vomitings seem to him to be controlled by electricity. He believes, moreover, that this remedy is sufficient to render great benefit in other gastric disorders associated with simple (non-cancerous) affections of the stomach. To make its application the most useful, he lays down the following conditions:

1 He advises a simultaneous action on the two pneumogastrics by a double or bi-polar application, which method consists in placing two electrodes of equal size and of small surface at the interior angle of the clavicle, at a point as near as possible to the trunk of the vagus nerve. Each of

the poles should stimulate a pneumogastric (the one positively and the other negatively), so that the action of both shall be restricted to a localized surface and prevent a diffusion of the current.

2. The current must be as constant as possible, and all interruptions avoided during its application.

3. The electric intensity must be proportioned to the receptivity of the subject and to the resistance of the affection to be overcome, the medium dose varying from 5 to 10, and if necessary 15 milliampères, with a facility for increasing or diminishing progressively, according to the indications furnished by the patient.

4. The duration of the application should be, like the intensity, proportioned to the disease attacked, and the application should not cease until some effect is produced; it should be prolonged until the patient declares that he is better, and not be suspended until a calmative effect is established.

5. Galvanization having rather more of a curative than a preventative action, it will be preferable to make the application during digestion, to combat either dyspepsia or vomiting; therefore the patient is made to eat or drink previous to the application, and the current posseses the property of causing digestion or of arresting impending vomiting.

6. The applications in the beginning should be as frequent as possible, and all digestion should be aided and completed by the galvanization; later, the intervals can be increased in accordance with the amelioration.

7. Every application, if properly made, should be well tolerated and without any consecutive eschar; in order to prevent too much pain and all danger of cauterization, the tamporis should be carefully covered with very soft chamois skin, under which should be placed one or two supplementary layers of moist agaric, to concentrate to it a part of the galvanocaustic action. Any battery will answer, provided that it is furnished with a collector that will admit of a grouping two by two, or better one by one. A galvanometer of intensity divided into milliampères must of necessity be inserted into the circuit.

8. A comparative chemical study of the two processes of galvanization (mono-polar or bi-polar) of the pneumogastric, gives the preference to the latter. The unanimous opinion of all the patients who have been called upon to judge between their relative values, has been that the simultane-

ous galvanization of the two vagi nerves in the neck (bipolar) is the most rapidly active and efficacious.

9. In conclusion, the continuous galvanic current, well regulated, and localized, is the medicine for dyspepsia, gastralgia or vomiting. If these symptoms be purely nervous or reflex, it exercises an immediate and sovereign action upon them; in all other cases, without supplanting classic therapeutics, it is destined to serve as an active auxiliary.

The Exclusion of Strychnia and Arsenic from all Preparations Now in Common Use.

BY GEO. PRINGLE, M. D., C. M., CORNWALL, ONT.

THAT strychnia is an invaluable remedy is unquestionable; that it is the cause of serious mischief in some cases, even where every precaution has been taken and every fact that could decide for or against its use been most carefully gleaned, is equally unquestionable. Having prescribed it during many years under most guarded rules for female patients, both married and unmarried, with good results, I have lately met with three or four cases the peculiarities of which I think well to bring before the profession, not so much for any practical lesson they teach, as the moral they especially point, convinced that our failures, as we must have them, if properly noted, teach us more valuable lessons than our successes.

As the symptoms which indicated the employment of chalybeates with strychnia were much the same in all, I will not take up your space by describing more than one, but will give the result of the treatment in each.

CASE I. Mrs. J. K., æt, 30, mother of three children, consulted me in Jan. 25, 1883. She was of slight figure, complained of headache, vertigo, failure of sight, ringing noise in the ears, unpleasant taste in mouth and throat (especially in the morning), palpitation on the slightest exertion, poor appetite, bowels constipated, in short, functional derangement of every organ, but no disease, merely prostration. She was still nursing her fourth child, then fourteen months old; was perfectly sure she was not again pregnant; never had a return of menses since the conception of her first child, and never felt any of the unpleasant symptoms of pregnancy, but knew when she was so, as her children began to fail. The difference in the ages of the children ranged from twenty-two months to two years. Finding nothing pointing to pregnancy, I at once put her upon the following mixture:—

℞—Tr. calomb.,	
Tr. rhei co.,	*aa* ℥j.
Acid nit.-mur. dil.,	ʒiv.
Liq. strych., B. P.,	ʒj.
Elix. iron et gent.,	℥j.
Aqua ad.,	℥iv.—M.

SIG.—One teaspoonful in water after each meal.

Ordered a podophyllin pill twice a week at bed-time; also the immediate weaning of child, and to report the result of treatment in about two weeks.

CASE II. Was nursing her first child, then four months old, child large for its age; had no return of menses. I prescribed the following:—

℞—Elix. iron, calisaya et strych., ℥iv.—M.

SIG.—One teaspoonful after each meal.

Advised weaning the child, and rest as adjuvants; cautioned her as to the mixture, and asked to know the result in about two weeks.

CASE III. Was the mother of three children; was nursing the third, then four months old; her menses had not returned and did not usually do so until her children were ten months or a year old. There were no signs of pregnancy. I prescribed the same as for Case 2, and asked to hear result.

CASE IV. Was similar to Case 1, only I was more particular in my questioning, if possible. The principle of treatment was the same as before, with a request to hear the result.

Now as to the result. In three cases out of the four the result was an abortion. Case 2 complained of most severe bearing-down pains, as in labor, and painful micturition. Of her own motion she stopped the mixture for a time, the painful symptoms at once ceased, but upon again renewing her treatment they began to return, when she stopped it entirely. I then gave her a tonic, without strychnia, which benefited her at once. Case 1 had an abortion, but not for some time (about two weeks) after finishing her mixture. Case 3, whose infant was only four months old, had an abortion very soon after commencing her tonic. She stopped it while ill, began it after recovery, with no other ill results. Case 4, to her astonishment, also suffered an abortion, the first one in her life.

Remarks:—Now admitting, for the sake of argument, that there are many causes, over which patients have no control, quite sufficient to produce abortion; admitting also that these three cases may have been merely accidental, they are very unpleasant, not to say dangerous, and as I do not care to run any more risk of such occurrences, I have therefore ceased prescribing strychnia for any patient where conception has taken place.

The moral pointed is this: In nearly every tonic elixir, strychnia forms an ingredient, and amongst the laity many do their own prescribing where a tonic only is needed, although the principle is a bad one. When one reflects, therefore, that these elixirs are often prescribed in this way, many of them containing not only strychnia but arsenic, he can not but ask himself the question, If so much mischief may be done quite unintentionally in such cases as mentioned, how much more may be done designedly?

I would suggest that, if it be possible, the profession should unite in urging upon manufacturers the propriety of excluding both strychnia and arsenic from all elixirs, and leaving these two dangerous remedies solely in the hands of physicians.—*Canada Lancet.*

Fees, Malpractice.

The two articles which follow we take from the *Canada Lancet*, appearing editorially in that journal. Although the occurrences took place in Canada, they will be read with interest in this country:

Medical Men's Fees.—A test case was recently tried in Belleville, Ont., to determine whether or not a patient is liable for the fees of a medical man who is called by a friend or relative. In this case the brother of the patient summoned the consulting physician, who assisted in the amputation of a finger. The patient refused to pay the consulting physician, on the ground that he had not engaged him, and told him to look to the attending physician for his fee. The Judge who tried the case ordered a non-suit, holding that the patient was responsible only to the physician he engaged. We are little surprised at the ruling of the Judge in this case, as we had always entertained the idea that if the patient accepted the services of a physician, he was bound to pay him. It is a well-recognized principle among the medical profession, that when a medical man is called in consulation the patient is responsible for the payment of the fee. In view of the Judge's ruling in this case, the question might well be asked, Who is to be responsible for the fees where the patient is unconscious and incapable of engaging anyone? One not versed in the intricacies of the law would naturally suppose that a patient's brother could safely be considered an authorized agent to engage the services of a medical man, but such it seems is not the case. And if a patient is not responsible for the fees of a medical man who has been engaged by his brother, what are the chances of having a legal claim to remuneration for services rendered when the party who calls the physician is only a neighbor, a friend, or, in case of emergency, possibly a stranger?

MALPRACTICE SUIT.—A suit to recover $2,000 damages for alleged malpractice was recently tried in Walkerton, Ont. The plaintiff, Mr. Robertson, received a fracture in the lower third of the thigh in November last, and the defendant, Dr. H. A. Bonnar, of Chesley, Ont., was called to treat him, which he did in the usual way by means of a weight and pully, together with the use of coaptation splints. The treatment was continued eight weeks, and upon examination there was found to be ¾ of an inch shortening, besides a considerable degree of angular displacement at the seat of fracture. There was also some stiffness of the knee joint. The plaintiff alleged that the defendant had not treated the fracture properly, and also that he allowed him to use his limb before union had taken place. The plaintiff's views were supported only by the evidence of Dr. Cooke, of Chesley, who was called in to treat the patient after Dr. Bonnar had discontinued his attendance. For the defense it was shown by Drs. Fulton and White, of Toronto, and several other medical gentlemen in the locality, that Dr. Bonnar had treated the plaintiff skillfully and carefully, and was not in any way to blame for the result. The shortening was not more than the average in fracture of the thigh, and the deformity did not interfere with the utility of the limb. At the close of the plaintiff's case, the Judge said there was no evidence to go to the jury as to the allegation that the method adopted by the doctor was an improper one, as it had been proved to be a method sanctioned by the highest authority. He would have to leave the other portion of the case to the jury, as to whether the doctor had carefully attended his patient, and to say whether the result had been what might naturally be expected if the plaintiff had been properly treated, even assuming the method adopted to be a proper authorized one. The jury, failing to agree, were discharged. We congratulate Dr. Bonnar on the result of the trial.

Rapid Cure of Soft Chancres.

EXCEPTIONALLY, chancroids heal in fifteen days. The greater number require from four to six, or even eight weeks, and some even take three to four months. After many trials, Ricord found the best results from dressing with nitrate of silver, solution 1 in 30; then in the tartrate of iron and potash, and more lately iodoform.

Hebra has lately promised an entire cure in a few days by the topical employment of salicylic acid. He begins by carefully cleaning the penis with warm water, removing all crusts and dried pus and trace of former dressings; for the latter he uses oil and spirits of soap. On the cleansed and dried penis salicylic acid is applied in a manner to cover the sore and a very narrow margin. The healthy skin, as far as possible, must be preserved beyond all irritation which might favor auto-inoculation. The salicylic powder is maintained in place by a thin layer of wadding fixed by a band of adhesive plaster. If the suppuration is not very abundant, it is sufficient to renew the dressing once in twenty-four hours—otherwise morning and evening—taking care to wash the wound thoroughly each time.

After the end of the first day the ulceration is covered by a whitish scab, while the neighboring margin of skin is slightly reddened. The scab increases in thickness, and by the third day the salicylic powder may be discontinued, and a simple ointment applied and kept in position by wadding and adhesive plaster. Usually the scab falls in a half a day, leaving a simple wound, deprived of virulence, which only takes two or three days to heal completely. This method acts without causing pain, and is of very great cleanliness. The most important advantage is the suppression or abortion of buboes.

Dr. Barthelency, in reporting this communication for the *Union Medicale,* justly says that the method is worthy of trial. —*Canada Practitioner.*

Microscopy.

Illumination.—E. M. Nelson finds daylight effective for low powers up to ⅔ in., and with condenser up to ⅙ in. Direct sunlight (rays of the sun) involves the use of a heliostat, otherwise the continued adjustment of the mirror is irksome. Where strong resolving power is needed, oblique pencils of sunlight from the heliostat outrival any other illumination; but much care is necessary not to injure the sight, and on the whole, he can not recommend its general use except for photography. Diffused daylight is too uncertain and too variable for accurate testing of objectives. It is not possible to get with diffused daylight the absolutely best image that an objective will produce. A really critical image could only be seen with artificial light, and with a good condenser and diaphragms. He does not mean to say that no good work can be done with diffused daylight, for excellent work is done with low or medium powers; but he insists that it is not possible to do any such critical work as testing objectives by daylight as thoroughly as it can be done by artificial light. With daylight and mirror only there is milkiness and "glaze." The milkiness can be got rid of by a diaphragm, and the "glaze" by using a ground glass behind the object. Unless a condenser is used, there will always be found a falling off in the quality of the image with all powers higher than ⅔ in. From long experience in working with the microscope, he feels justified in asserting that, on the whole, daylight is more trying to the sight than lamplight.

The oxy-hydrogen light may be serviceable for resolving such tests as Nobert's lines, but the incandescent lamp he regards as entirely a failure for microscopical purposes. "This is at once obvious, upon the consideration that the finest images seen are got by viewing objects, as it were, *in the image of the source of light.* All critical images of transparent objects viewed by direct transmitted light, require first, that the source of light should be pictured by the condenser exactly in the plane of the object; the object then serves to interrupt the image of the source of light. The observer has simply to arrange the lamp, condenser, and diaphragms so as to produce the most perfect image of the source of light of the required size in the plane of the object; the objective will then have fair play. The size of the image of the lamp flame can be controlled by distancing the lamp. There is no other secret in the matter. With the incandescent lamp the image produced by the condenser represents the mere carbon thread, on which no object could be seen projected; in order to obtain same extent of brightly luminous field, the condenser must be put out of focus; then the intensity of light is so reduced that the observer would simply discard the incandescent, finding it far less serviceable than a shilling paraffine lamp.—*Journal of Royal Microscopical Society.*

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Homogeneous Immersion Objectives.—As our Microscopical readers are aware, these objectives are generally made without cover correction. Some, however, have argued that, as the slightest variation in the refractive index of either the immersion fluid or the cover-glass, a change of eyepieces, or the least alteration in the length of the body—in a word, any circumstances differing in the slightest degree from those under which the objective was corrected—must affect the performance of homogeneous immersion objectives of the highest class, they should still be made adjustable. Dr. W. B. Carpenter, however, is of a contrary opinion. He says: "The truth of this contention can, no doubt, be proved, not only theoretically, but practically, the introduction of the adjustment enabling an experienced manipulator to attain the highest degree of perfection, in the exhibition of many mounted objects, which can not be so well shown with objectives in fixed settings. But it may well be questioned whether it is likely to do the same service in the hands of an ordinary working histologist, and whether the scientific investigator will not find it preferable, when using these objectives, to accept what their maker has fixed as their point of best performance. The principal source of error in his employment of them lies in the thickness of the optical section of the object; for the rays proceeding from its deeper plane, having to pass through a medium intervening between that plane and the cover-glass, whose refractive and dispersive indices differ from those of the glass and immersion fluid, can not be brought to so accurate a focus as those proceeding from the plane immediately beneath the cover-glass. The remedy for this, however, seems to be rather in making the preparation as thin as possible, than in the introduction of what is likely, in any but the most skillful and experienced hands, to prove a new source of error."

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Bacteria in Blood.—At a late meeting of the *Royal Microscopical Society*, as stated in the Journal of the Society, Prof. Bell stated that Dr. Timothy Lewis, who had been making some observations in India, opened a dog and removed his two kidneys; one was placed directly into warm paraffine and left to cool, and the other was examined at once. The latter was found to contain no bacteria, but the one which had been put into the paraffine was found to be swarming with them. This fact had not been referred to by those who were at present examining into the nature of cholera germs, but he thought it contained a moral which applied to all forms of disease.

Mr. Beck considered the question to be an extremely interesting one. If what the Secretary had said—that the bacteria were the result and not the cause of the disease—were well founded, the same might apply to other diseases.

The President thought that it was not Mr. Dowdeswell's intention to say that there were disintegrated corpuscles, but that there were pseudo-bacteria. In the case of splenic fever the specific forms had been seen, and it had been not only proved that when introduced into the system they would give rise to the disease, but that when they had been filtered out the disease could not be communicated, so that it was clear in this case that the bacteria were the absolute cause and not the result of the disease.

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The Royal Microscopical Society of Great Britain, at their meeting in August, appointed their President, the Rev. W. H. Dallinger, F. R. S., in connection with Mr. Glaisher and Mr. Bennett, to attend the meeting of the *American Society of Microscopists* which meets next year, August, in Rochester, N. Y., and also to be present at the meeeting of the *American Association for the Advancement of Science*, to be held in Philadelphia.

Gleanings.

THE TREATMENT OF ORGANIC STRICTURES OF THE URETHRA.—1. That in the treatment of organic strictures of the urethra, urethrotomy, whether internal or external, and also the method by divulsion, are attended with serious risk to the patient, on account of hemorrhage, pyæmia and uræmia.

2. That strictures treated by these methods are no less liable to recurrence than those treated by gradual dilatation. Indeed, unless followed by persistent dilatation, they are subject to early relapse.

3. That gradual dilatation of urethral strictures, though of slower progress in the beginning, is almost entirely free from danger, more permanent in its results, and, upon the whole, the shortest and most perfect method of cure.

4. That in the treatment of tight urethral strictures, the multiple wedge principle devised by the writer, viz: that of introducing, side by side, and one at a time successively, a number of filiform bougies, whether applied to the interrupted or the continuous method, offers to the surgeon the easiest, safest and best method for affecting the solution or *absorption* of the inodular tissue, and for removing the obstruction.

TREATMENT OF INTESTINAL OBSTRUCTION BY ELECTRICITY. —Bloch, in *Vratch* (*Jour. de Med. de Paris*), gives the case of a patient, 24 years of age, who had not had an operation from the bowels for eight days, and presented an enormous enlargement of the abdomen, with vomiting and hiccough. Purgatives and injections were used to no purpose, when electricity was tried by introducing one pole high up in the rectum, and applying the other pole alternately to different parts of the abdomen. Each application was kept up for from ten to twenty minutes; they were repeated ten times, four times at intervals of about three hours during the first day of treatment, and twice during the second day. The hiccough disappeared after the first application; the patient had a stool after the fourth application. Professor V. A. Manassein has frequently used this method with success for a number of years, in cases of habitual constipation resulting from atony of the abdominal walls and muscular coats of the intestine.

Book Notices.

The Ear: Its Anatomy, Physiology and Diseases.—A Practical Treatise for the Use of Medical Students and Practitioners. By Charles H. H. Burnet, A. M., M. D., Professor of Otology in the Philadelphia Polyclinic and College for Graduates in Medicine, Consulting Aurist to the Pennsylvania Institution for the Deaf and Dumb, etc. With One Hundred and Seven Illustrations. Second Edition, Revised and Rewritten. 8vo. Pp. 585. Philadelphia: Henry C. Lea's Son & Co. Cincinnati: R. Clarke & Co. Price, $5.50.

It was the aim of the author in presenting this work to the profession to furnish a new work which should exhibit Otology clearly and concisely in its present aspect, and should indicate the direction in which further researches can be most profitably carried on.

Considerable practice in teaching has shown the author that the pathology and therapeutics of the ear can not be properly understood without a more intimate acquaintance with its anatomy and physiology than is afforded by the ordinary text-books. Consequently Part I., occupying over one hundred and fifty pages, is largely taken up in a description of the anatomy and physiology of the structures which enter into the organs of hearing.

Diseases of the ear and skin constitute two classes of diseases, of which the ordinary physician knows the least about of all diseases, and yet there are none for which he is more frequently called upon to prescribe. When called upon, however, for relief in case of trouble with the ear, not wishing to confess ignorance, he writes a prescription for some lotion, probably an astringent one containing, may be, wine of opium or morphine, and directs it to be dropped in the ear a certain number of times each day. The prescription is the same in pretty nearly all cases, for he is not able to distinguish between the different ailments, nor has he any knowledge of their therapeutics. How much better would it be for both themselves and their patients if such physicians would procure such a work as the one before us and study it thoroughly. They would add to their reputations as votaries of the healing art, and, at the same time, would be able to render the relief to their patients which they have a right to expect on consulting them. We have no doubt that patients sometimes lose their hearing permanently by having the affections of their ears tampered with for a long time by their physicians who know nothing about them.

We know of no work upon diseases of the ear that is better adapted to impart the knowledge necessary for their skillful and efficient treatment. While concise in its descriptions, yet they are presented with sufficient minuteness and clearness to be easily understood. After a full account of the anatomy and physiology of the ear has been given, the causes and pathology of the various diseases are stated, and then follows a presentation of the latest and most approved methods of treatment. In Part II., the author explains the methods of examination—the instruments employed, etc.; then describes the auricles and external auditory canal, defects, morbid growths and injuries, their diseases. The membrana tympani and the middle ear are treated in separate sections, their disorders set forth clearly, and modes of diagnosis described. The common affections of purulent inflammation, acute and chronic, are interestingly treated, but we have only space to merely allude to them, much less to relate the course and consequences of them as set forth. The latter sections are devoted to an account of the diseases of the internal ear, the last section being occupied with an account of deaf-mutes and partially deaf children.

A Practical Treatise on Diseases in Children. By Eustace Smith, M. D., Fellow of the Royal College of Physicians; Physician to His Majesty, the King of the Belgians; Physician to East London Children's Hospital, etc. 8vo. Pp. 844. New York: William Wood & Co. Cincinnati: H. Stacy.

This is an entirely new work on Diseases of Children by a distinguished English physician. The close relation that exists between this country and Great Britain, and which is constantly increasing, is exemplified in this work. It is not a reprint, as has been the case heretofore of a work published in this country written by a foreigner; for, although written by an Englishman residing in England, yet it was written expressly to be published in this country. We learn by the preface that Messrs. Wm. Wood & Co., the distinguished publishers of medical books in New York, procured Dr. Eustace Smith, of London, to write the work for them.

The Messrs. Wood & Co., of course, very justly regarded Dr. Smith as peculiarly qualified to write a treatise upon Diseases of Children. His opportunities for studying these complaints have been very great, having been connected with a hospital for children many years, besides having met with many cases of disorders of childhood in private practice.

The author has admitted into his pages descriptions of every form of illness which is capable of being influenced in its manifestations by the early age of the patient. Those only have purposely been omitted which, like diabetes, present exactly the same characters in the child that they do in the adult. He has treated each subject as fully as the space would permit.

A valuable feature of the work is the care which has been bestowed upon the sections relating to diagnosis and treatment. But we are happy to state that Dr. Smith does not favor the exhibition of drugs, in the complaints of children, beyond what is absolutely necessary. He regards as the appropriate treatment, in many of the maladies of childhood, quiet, rest, proper food and plenty of fresh air. We have not unfrequently seen children restored to health by these means alone without the administration of a single dose of medicine. In childhood the vital organs are in their most active condition, and ready to begin repair, when damage has been committed, if only the circumstances be favorable; and they are made so by the means mentioned. We will mention some of the classifications of diseases made by the author: Acute Infectious Diseases; General Diseases not Infectious; The Diathetic Diseases; Diseases of the Ductless Glands and Blood; Diseases of the Nervous System; Diseases of the Organs of Respiration; Diseases of the Mouth and Throat; Diseases of the Digestive Organs; Diseases of the Liver; Diseases of the Skin.

We are confident that physicians and students will regard the work as a very valuable one.

A MANUAL OF OBSTETRICS. By Edward L. Partridge, M. D., Professor of Obstetrics, New York Post-Graduate Medical School; Instructor in Obstetrics, College of Physicians and Surgeons, New York, etc. With Sixty

Illustrations. 18 mo. Pp. 295. New York: William Wood & Co. Cincinnati: H. Stacy.

We have no doubt but that if every medical student in this country could come to know of this little book, every one of them would procure a copy forthwith. Such a *multum in parvo* we do not believe we ever met with, although we have seen all sorts and sizes of pocket manuals. This little work can almost be carried in the vest-pocket, and yet it affords a very full outline of the obstetric art, with quite an intelligent description of the manipulations for turning, delivering by the forceps, managing hemorrhages, etc.

Some may say that there is no need for such abridgments of text-books. But we consider that they can be made highly useful. They permit, on the part of the student who is studying under a preceptor, or attending medical lectures, of rereadings until all the leading principles can be made perfectly familiar—almost learned by heart. But take any book and eliminate from it every unnecessary paragraph, sentence and word, and it will be astonishing the extent it will be dwarfed in size. Unnecessary verbiage is a fault with the best writers. Of course, in a work of the kind before us, the author has made it an object to eliminate every unnecessary word.

ELEMENTS OF PHARMACY, MATERIA MEDICA AND THERAPEUTICS.—By William Whitla, M. D., (Q. U. I.), Physician to the Belfast Royal Hospital, Consulting Physician to the Ulster Hospital for Diseases of Women and Children, etc. With Lithographs and Wood-Cuts. Second Edition. 12mo. Pp. 602. London, England: Henry Renshaw, 356 Strand. United States: Henry C. Lea's Son & Co.

As stated on the title page, this work is devoted to Pharmacy, Materia Medica, and Therapeutics. As all the various manipulations of the Pharmacist are taught in the processes of preparing medicinal preparations, as well as setting forth the history of the different drugs, describing their physical properties and therapeutic actions—stating, as far as possible, the indications they are expected to meet in prescribing them, their doses, etc.—it will be found to be a very convenient work indeed, containing what is generally to be found scattered through several works. Materia Medica and Therapeutics are usually taught in works devoted to them exclusively, and so as regards Pharmacy and Chemistry. But in the work before us, it has been the aim of the author to furnish to the medical student, in one book, all the principal facts in regard to a remedy—describing it first as a drug, how prepared to be used, its therapeutic actions, chemical effects, etc. We are sure that both medical students and physicians will hold the work in high estimation.

The treatment of Pharmacy constitutes the first part. This part we are sure, will be held in high estimation. To the physician who is so situated that he is under the necessity of preparing his own medicines, it will be of especial value, as, without prolixity, it describes clearly all the peculiar manipulations essential for preparing all the various pharmaceutical preparations. In this part is taught how to make mixtures, how to weigh, measure, to make powders, pills, infusions, extracts, tinctures, wines, syrups, etc.

The second edition has been carefully revised, and as nearly as possible brought up to the present date. The author very correctly states that the very favorable way in which the little work has been received is an evidence that it has supplied a want.

HAND-BOOK OF THE DIAGNOSIS AND TREATMENT OF SKIN DISEASES.—By Arthur Van Harlingen, M. D., Professor of Diseases of the Skin in the Philadelphia Polyclinic and College for Graduates in Medicine, Consulting Physician to the Dispensary for Skin Diseases, etc. With Two Colored Plates. 12mo. Pp. 282. Philadelphia: P. Blakiston, Son & Co. Cincinnati: R. Clarke & Co. Price, $1.75.

The author states that this work is more especially designed for the wants of the practitioner, to be used for ready reference. Not being, therefore, a manual for students, no reference is made to pathological anatomy, and but little attention is given to etiology. The scope of the work embraces description, diagnosis and treatment in which the practitioner is the most interested, when he meets with a case of cutaneous disease and refers to a work for information.

An examination of the work impresses us very favorably with it. It is a new one—not a revision of a previous edition—so that the author, in preparing it, has had no embarrassment in making every part of it reflect the most recent views of dermatologists, and especially to have it exhibit the most approved modes of treatment.

We are sure that physicians who will add the book to their libraries will esteem it very highly. Its descriptions are plain and easily to be understood, and a few moments' reading in regard to a disease will enable one to so fasten in his mind its distinguishing features, that he will readily recognize it when met with. Etiology and pathological anatomy, etc., not being treated, the mind is not distracted by them in observing the signs of differentiation. It is not altogether an unjust stigma upon medical men, that the ignorance of the rank and file of them of skin diseases is so great—that they are so little able to discriminate one from the other—that if a person affected would consult a score, scarcely two would be found who would agree in the name of it. The work before us will do much in diminishing this great ignorance.

Malaria and Malarial Diseases.—By George M. Sternberg, M. D., F. R. M. S., Major and Surgeon U. S. Army; Member of the Biological Society of Washington, etc. 8vo. Pp. 329. New York: William Wood & Co. Cincinnati: H. Stacy.

This work forms the July number, 1884, of Wood's Library of Standard Medical Authors, which yearly series of twelve volumes we have often spoken of before.

The bare announcement of the name of the author of the volume before us is all the evidence needed of its great value. So eminent a scientist as Dr. Sternberg would not bring into existence any other than a work replete with learning and extensive research.

Our time is too short to give this work the notice it deserves, and we, therefore, propose, at this time, to merely announce it. In another issue we hope to take it up and give some of the prominent features of it. Upon such interesting subjects as Malaria and Malarial Diseases, we are sure our readers will be anxious to know the results of some of the investigations of so distinguished an investigator as Dr. Sternberg.

Gargle in Diphtheria.—℞. Kali. chl., ʒ ii.; glycerine; syr. simp., aa ℥ i. M. Et adde. Acid mur. dil. m., xl.; aq. q. s. ad., ℥ viij.

Michigan State Board of Health.

Reported for the CINCINNATI MEDICAL NEWS.

THE regular quarterly meeting of the Michigan State Board of Health was held at Lansing, October 7, 1884. The following members were present: Henry F. Lyster, M. D., of Detroit; J. H. Kellogg, M. D., of Battle Creek; C. V. Tyler, M. D., of Bay City; and Henry B. Baker, M. D., Secretary.

The Secretary's reports of property, etc., for the fiscal year ending September 30, 1884, showed that larger accessions had been made to the library by gift and exchange, and a lesser number by purchase, and that unusually large distributions of public health documents had been made during the year.

Prof. R. C. Kedzie presented nine samples of drinking water taken from the public water supplies of Bay City, West Bay City, Grand Haven and Ludington, all of which showed large quantities of organic matter and other impurities. Prof. Kedzie was granted till November 1 to complete his paper on "Potable and Culinary Waters in Michigan, with Special Reference to Contamination by Sawdust," for publication in the Report of the Board for 1884. Dr. Kedzie was also requested to make a special report on the use of explosive substances for heating and lighting purposes.

It was decided to hold a Sanitary Convention at East Saginaw in December, and a committee was appointed to confer with the local committee as to date, programme, etc.

At a request of the Board of Correction and Charities, committees were appointed to examine and report on the sanitary condition of the State House of Correction at Ionia, and on the sanitary bearings of the use of boiler-iron for cells in jails.

The Secretary continued his report on outbreaks of cheese-poisoning, and even outbreaks in Michigan had been reported this year, in which there were 190 cases of sickness, but no deaths. The symptoms following the eating of the cheese were very similar in all cases, consisting of pain in the stomach, cramping of muscles, coldness of extremities and great prostration, with violent retching and purging lasting for several hours. In most cases the larger the amount of cheese eaten the more violent were the symptoms. Samples of the Lowell cheese had an acid reaction and a peculiar strong odor, believed to be due to caprillic acid or caprois acid; examined with a one-tenth inch immersion objective, this cheese was found to contain the mycelium of a mold, and to be swarming with several kinds of actively moving bacteria. Samples of the cheese were sent to Dr. V. C. Vaughan, of Michigan University, and to Prof. T. J. Burrill, of Illinois State Industrial University, for further examination and experiment.

Further time was given to the Committee on Text-books on Physiology and Hygiene. The Secretary called attention to a sanitary house-to-house inspection which had been made recently in the city of Ann Arbor. It is believed that this is the first systematic inspection of the kind ever made in this State.

A paper on typhoid fever was presented by the Secretary, and was approved for publication in the Annual Report of this Board.

The State has been free from smallpox during the quarter.

The recent report that pleuro-pneumonia exists among cattle in the vicinity of Nashville, Mich., proved on inquiry to be unfounded. During the quarter glanders was reported present among horses in Delta County. Letters were sent to health officers or supervisors of all townships where the disease was reported to exist, urging prompt action on the part of the local boards of health to exterminate the disease. It is believed that there are fewer cases than were at first reported. As one result of the correspondence, two of the infected horses were shot by their owner.

The Secretary reported the preparation, publication and distribution of 12,000 copies of the document on "The Prevention and Restriction of Cholera." A similar document on "Cholera in its Relations to Railroads" had also been prepared at the request of the Commissioner of Railroads, and had been printed and distributed by the Commissioner, in connection with a circular from his office to all railroad officials in Michigan.

A list of the names and addresses of the health officers of Michigan has been printed, and a copy sent to each local board of health. The document on "The Restriction and Prevention of Diphtheria" has been revised with reference to new laws and reprinted. The new compilation of the public health laws has been distributed to every health officer in the State,—a class of persons who do not receive the Session Laws.

Editorial.

An Offer.—We feel disposed to extend to those subscribing for the Medical News all the favors in our power. Some two or three months ago we offered a little work, by Dr. Henri Leonard, of Detroit, on Urinary Analysis, at a large discount. Quite a number took advantage of the offer, which is still open, so that any subscriber remitting to us fifty cents will, in due time, receive the work, postage prepaid, the price of which is $1.00. Any old subscriber sending us the name of a new subscriber, with $2.00, will receive the work gratis.

A good reliable fountain gold pen is especially serviceable to a physician. Such an one, containing about two drachms of ink—enough to fill many sheets of paper with writing—can be carried in the vest-pocket and used with the same facility that a pencil can. A poor pen of the kind, however, is a nuisance, as we know from personal experience. For over two years we tried to find a reliable pen carrying ink, before we succeeded. We experimented with some four or five different kinds of stylographing pens, and several varieties of fountain pens, but were compelled to discard all of them. Just as we were on the point of concluding that a satisfactory stylographing or fountain pen could not be made, we were induced by the maker of it to try another, and to our very great satisfaction we confessed that we had found what we had long sought for, after having spent a great deal of money; for several of the discarded pens had cost $5.00 and $6.00 each.

The Fountain Pen which we have found so very satisfactory costs but $3.00 retail. To any subscriber of the Medical News remitting us $2.50, we will send the pen by mail, postage paid. If after a fair trial the pen should not prove satisfactory, the money will be refunded on return of it. But we feel sure that after using it for awhile, no one after purchasing one would be willing to take ten dollars for it and do without it.

In accepting either of these offers, subscribers will have only $1.50 to pay for the Medical News.

The Cure of Crooked Noses by a New Method.—A crooked nose is not by any means an unusual sight, but, although not uncommon, is a disagreeable deformity. If we had a crooked nose we certainly would not wish to have our picture taken for the use of friends.

We are glad to announce that Dr. John B. Roberts, recently reported a method of straightening crooked noses, which he originated, to the *New York Pathological Society.* He very correctly stated that the usual advice given to patients with deformed noses, from nasal fracture sustained in childhood or later, is to undertake no surgical treatment, but to become reconciled to the disfigurement as best they may.

The doctor presented a man to the society who, ten years ago, sustained a fall upon his face, from which he recovered with the end of the nose bent to the right, and with considerable obstruction of the left nostril. The doctor had operated two days previously. We will quote his description of the case in his own words.

"You see now a straight nose, and nothing to call attention to the operation except a small piece of black court-plaster a little to the right of the nasal bridge. Just within the right nostril close inspection revels the head of a pin, situated on the side of the septum, near the columella.

"Replacement of the deformed structures in this case was very simple. With a scalpel introduced through the left nostril, I perforated the cartilaginous septum at its upper and back part, and made a long incision through it in a direction downward and forward. This permitted me to push the whole cartilaginous portion of the nose to the left, and overcome, to a great extent, the lateral deformity. To retain the parts in this position I introduced a steel pin about one and one-fourth inch long into the right nostril, and passed it completely through the anterior and upper segment of the divided septum, near the columella. Having the movable portion of the septum thus transfixed, I was enabled, by carrying the head of the pin to the left, to move the anterior part of the nose to the left, and to retain it there by imbedding the point of the pin deeply in the immovable cartilaginous septum and mucous membrane at the back of the left naris. In other words, I incised the deformed cartilage, and pinned it in position very much as you would pin a flower in the buttonhole of a coat. There still remained a little deflection of the end of the nose to the right, which seemed to be due to malposition of the lateral cartilage close to the right nasal bone. With a tenotome in the right nostril, I pared the cartilage loose, without perforating the skin, and pinned the parts over to the left by a second pin inserted from the cutaneous surface of the dorsum on the right of the medium line. The point of this pin was fixed by having its point imbedded in the tissues of the left naris. It is the head of this second pin that is covered by the small square of court-plaster. The correction of the angular deformity of the septum removed most of the occlusion of the left nostril, which had greatly annoyed the patient.

"I have thus given an idea of the method which has, I believe, great capability for relieving unsightly nasal deformities. The novelty consists merely in pinning the parts in position until cicatrization takes place. Endeavors have occasionally been made, as by Mr. Adams, Dr. Weir, and others, to hold deflected noses in position, after operation, by the use of clamps, rods attached to the forehead, adhesive plaster, plugs, and similar devices. All of these are objectionable, because so conspicuous and troublesome, and would probably be adopted only in instances of great deformity. The pin method, however, leaves no noticeable scar, is not troublesome to the patient, and is applicable, therefore, even to those slight deformities whose chief annoyance is an æsthetic and cosmetic one. I leave the pins in position for about two weeks."

MEDICAL RHYMES.—Just as we are engaged in closing the present number of the NEWS we have received, from the publishers, a copy of a book entitled "Medical Rhymes," etc. We have neither time nor space to give it a notice among our Book Notices, but will do so in our next. It is published by J. H. Chambers & Co., of St. Louis. The author is Hugo Erichsen, M. D., Professor in the Quincy School of Medicine.

In the Introduction our author makes quite a number of witty expressions, some of them containing considerable, if they are witticisms; for instance, he says that people have very peculiar ideas about doctors. One is that a man whom they have known before he became a doctor can not be a doctor. In other words—the doctors whom they know and recognize as such, *have been doctors ever since they knew them.* Hence the great difficulty of a young graduate obtaining practice in the neighborhood or town when he was born and raised. He states that he has often heard the expression, "Why, he is no doctor; I have known Jim so and-so ever since he was born;" and howsoever well educated Jim so-and-so may be, and howsoever well qualified he may be for the practice of his profession, the merest dummy, *whom the people know as Dr. Dummy the first time they meet him*, will take the bread and butter right out of his mouth.

Another queer notion that people entertain, as mentioned by our author, is that a doctor must never engage in anything but the practice of medicine. He must never make a political speech, or a temperance harangue, or sing in a choir, however musically inclined he may be, or write a poem, however filled he may be "with the divine afflatus of poetry." (We do not quote from the Introduction, but from something else.) All inclinations to engage in any of these acts must be suppressed, or Mrs. Grundy, or somebody else, will form a bad opinion of him. For instance, if Mrs. Grundy should happen to see him sitting in a church choir, pouring out his soul in melodious song, with withering contempt she will express herself—"Well, if there ain't Dr. Harmony singing like a fool! and it ain't a week since I was a-taken out of his prison. I thought then there was something wrong, and now I know what it is; he's one of them fool singers." Dr. Harmony's *hash* is settled with Mrs. Grundy. In order for him to keep up his reputation with the old ladies, and with those who are not old ladies, he must forever go about with his head bowed down in deep contemplation of the details of the last cholera epidemic, or "figuring" on the size and propagating qualifications of the *bacillus tuberculosis*.

The author states that an old lady said to him once: "Now, doctor, I don't want you to go off down town and go to talkin' and crackin' jokes with the men folks; I want you to put in your time to-day a-thinkin' about my liver." He says he knew all about her liver then that he could possibly have known if he had secluded himself and "put in his time a-thinkin'" for a whole month.

In consequence of the older practitioners carrying in their saddlebags sweet spts. of nitre and creosote, and we will add also asafetida, they were attended with an odor, so much so that the *smell* was regarded as a sign of a physician. When the author began practice in the country, in one of his first cases he met with an old woman who looked him over and *through* him and invoiced him. A few days afterward he heard that she had made the following comments upon him: "Well, he looks like a doctor, and *acts* a good deal like a doctor, but he don't *smell* a bit like one." He knew what that meant, and so in his next order for drugs he included some having a perfume. He states, therefore, that a doctor must not only refrain from many things which other mortals do, and which the promptings of his nature impel him to do, and do certain other things which make him feel like a fool, but he must actually have a *professional smell* about him. He is, perhaps, the only being in the broad universe, except the skunk and the billy-goat, whom people expect to recognize by his peculiar odor.

QUININE.—It is the sulphate of quinine that is the oftenest employed. In Germany, however, use is made of the hydrochlorate, and in France Jaccoud prescribes the bibromhydrate of quinine. The salts are administered in solution, or oftener in capsules; the pill form should be discarded, for it not seldom happens that on account of the state of the digestive tube, these pills pass through the intestinal canal unaltered. This, however, will not be the case if they are made into a pill mass with glycerine, which, on account of its affinity for water, permits the pills to be easily broken up. But the capital point, and it is this on which Liebermeister has insisted, is to give large doses; for example, you should make your patient take eight grains every fifteen minutes till half a drachma has been reached. Liebermeister often exceeds this quantity and continues giving the small doses every quarter of an hour till from forty to sixty grains are administered, but in this country we generally stop at a half drachma.

The period of administration of these massive doses has also a great importance. Liebermeister counsels to give the quinine between five and seven o'clock in the evening; Germain Sèe prefers the morning; Jaccoud, with good reason, says that you should give it in the morning or evening, according to the effect which you desire to obtain. Do you wish, for instance, to procure a lowering of the evening temperature? give the quinine in the morning. Do you wish to obtain a matinal fall? give it in the evening. Liebermeister and Kaulich give one large full dose on one day only, and do not repeat the dose unless the temperature takes on again an ascending march. Jaccoud gives his salt of quinine in decreasing doses for three days. Sèe administers it without interruption. I believe that the method by interruption has great advantages over the continuous employ of the medicament, and you ought to be guided in this regard by the thermometric curve.

Employed after this fashion, sulphate of quinine produces in typhoid patients a very pronounced depression of the pulse and temperature, which lasts often for two days, and when the thermal curve rises it does not attain as high a point as before the exhibition of the quinine. But this anti-pyretic action, obtained with such large doses of quinine, has certain disadvantages. In giving to the patient thirty and often forty or more grains of quinine, you are likely to overstep the therapeutic effect, and obtain the toxic action on the brain and on the heart.

CONCENTRATED TINCTURES.—These preparations are not secret remedies, as any one is at liberty to make them. But to prepare them scientifically, with reference to certain principles, requires not only knowledge, but very considerable skill, probably more than the ordinary pharmaceutist possesses. By many physicians they are preferred to other liquid preparations, as fluid extracts, tinctures, etc., in consequence of their ease of administration, more promptness in action—being more readily assimilated by the system.

But what are Concentrated Tinctures? They are the active principles, dissolved in alcohol in definite proportions, and invariably represent a uniform amount of therapeutic power. They are concentrated, definite solutions of the medicinal constituents of the plants from which they are severally derived. Those of Keith & Co. are not made from the crude material, because different samples yield different proportions of active principle. They are much stronger than any other fluid preparation made from the same articles, differing from fluid extracts.

The ordinary tincture is made by macerating the whole of the part of a plant, made use of, in dilute alcohol, so that all of its constituents capable of solution, both active and inert, are dissolved. But in the Concentrated Tincture there is found only the various proximate *medicinal principles* inherent in each plant, which, each and several, are divested of all extraneous or non-medicinal admixture, and are combined in the same manner and proportions in which they existed in the plant.

We have not space to speak of but one of the Concentrated

Tinctures of Messrs. Keith & Co.; viz.: namely, the Con. Tr. of Avena Sativa. If one-half be true of what we have heard of the excellencies of this remedy, it should esteemed among the most valuable of the materia medica. It is held by many to be the best antidote for the opium and morphine habit. It is also said to be the best substitute for alcoholic stimulants, and for the tobacco habit. It is especially a nerve stimulant, acting upon the peripheral nerves, spinal cord and medulla oblongata. It is, consequently, highly commended in sick headache, chorea, neuralgia generally, but especially in neuralgia of the stomach and bowels, and almost a specific in neuralgia of the uterus, coldness of different parts of the body depending upon a want of nerve force. In painful and deficient menstruation it is highly spoken of. It has been prescribed with great benefit in epilepsy, partial paralysis, whooping cough, sleeplessness, in many congestive difficulties, and in loss of nerve power so common among ministers, lawyers, public speakers and writers. It is unequaled in cases in which complaint is made of a feeling of general prostration due to want of nerve force.

Dr. Carr, of Wilmington, N. C., writes that the prompt relief afforded by Con. Tr. Avena Sativa in neuralgia is wonderful. We have seen a report from Dr. Severance, of Massachusetts, that he has cured several cases of diabetes with it.

We would be pleased if some of our subscribers would try this remedy and report their success with it.

VALUE OF VACCINATION.—In a late number of the *Med. and Surg. Reporter*, the value of vaccination is most emphatically exhibited by a letter written by Dr. Neve, of the Mission Hospital in Cashmere, which has appeared in the *Civil and Military Gazette*, of Lahore. We quote from the letter as follows: "Thanks to the exertions of the English authorities, vaccination has been carried to some extent in that portion of India ruled by us; but in Cashmere the state of things in an entirely unprotected country is to be seen." Dr. Neve says it would be nearer the truth to say that the population is annihilated than to say that it is decimated by the scourge of smallpox. Smallpox is endemic in every village and town of Cashmere. "I recently obtained from all my hospital staff a statement of the mortality of smallpox among their immediate relatives. They represent twenty-five families, and in these 190 members were born, of whom exactly 100 died of smallpox. Two or three children have not yet been attacked; all others have had the disease." Thus, of these 190 persons, at least 95 per cent. had been attacked by smallpox, and of those 65 per cent. succumbed. "There is not much room for hoping," Dr. Neve says, "that these figures indicate any very unusual rate of mortality, and, of course, the evils inflicted by by the disease are lifelong in many who survive the attack."

The editor of the *Reporter* very correctly say, "Such is the condition of things in a country where vaccination is not practiced, and such it was here before the discovery of Jenner. So it would be again were the crazy notions of the anti-vaccinationists to prevail—which, however, we do not greatly fear. The world may be old, but it is not that senile."

A QUEER MISTAKE.—The *Buffalo Med. and Surg. Jour.* is responsible for the following; at least we found it in that journal: Dr. Theobold, of Baltimore, reports the removal, by a physician, from the nose of a lady, of a suspicious looking mass which had apparently sloughed off from its former attachments. the supposed neoplasm being regarded as probably of a malignant character. It was examined with the microscope, and at one of the meetings of a Baltimore society, its histological characteristics, together with the clinical facts, were duly presented. An animated discussion followed, and more than one hypothesis was advanced to account for the unusual features of the case. During the heat of this debate, an inquisitive individual inspected the supposed tumor with more care than others had done, and announced that it was a harmless specimen of the "bi-valve" order, familiarly known as the *oyster.* It was half digested, and had probably become lodged in the nose during a previous spell of vomiting. This is a forcible illustration of discussions, "long, labored and loud," too often held over imaginary or misconstrued "facts."

DR. LAWSON TAIT.—Lawson Tait, the eminent surgeon and ovariotomist of Birmingham, England, is now visiting in the United States, and is most warmly received by the profession wherever he goes. His success and boldness in abdominal surgery have given him the attention of the whole medical world, and his independent and fearless criticism has been severely felt, not less in high and honored, than in more humble professional circles. His address before the Canadian Medical Association, at its meeting in Montreal, August 25th, is an emphatic and pronounced epitome of his views on abdominal surgery, and of his opinions of methods and men connected with its history.

He once paid the following tribute to American medical schools: "In my early days the medical education of a British youth was not considered complete unless he had made a tour of the schools of France and Germany, and, like others, I felt of myself as was said of Proteus:

> "'Twould be a great impeachment to his age
> In having known no travel in his youth.'

"But I wish now that the time and money spent had been directed to the western instead of the eastern continent, and I now venture to predict that ere long it will be to the medical schools in America rather than to those of Europe that our students will travel, as did the apprentices of old before they settled down to the serious exercise of their craft."

BATHING.--The Bible says that cleanliness is next to godliness. All civilized people from the beginning of the world have regarded it as essential to health to keep the body clean by frequent bathings. To this day there are found in Rome ruins of the public baths used at the beginning of the Christian era. This being so, what are we to think of the remarks of Dr. Scott in the *St. Louis Courier of Medicine?* He first relates the case of a native of Missouri who had not been wet all over since 1863, and then says that, being astonished at this fact, he made inquiries respecting other residents of the same State. He found that not a third of the people in Missouri bathed once a month, and fifty per cent. do not take a full bath from October to May.

The query naturally occurs to one, after reading these statements of Dr. Scott, who seems to be an intelligent gentleman who would not knowingly exaggerate, if such are the habits of the people of Missouri as regards personal cleanliness, how far do the same conditions exist with the residents of other States. Are they any more cleanly than their kinfolk in Missouri? or are Missourians a peculiarly filthy people? Really, we would like to believe that a greater degree of cleanliness exists among the people of the States than is represented by Dr. Scott as prevailing in the puke

State, but we can imagine no reason why there should be. But let us hope for civilization that it is so.

Trommer Extract of Malt.—The Extract of Malt is not a proprietary medicine, as our readers are aware, since any pharmacist or individual has the privilege of making it, if he has the facilities for doing so. A dozen or more firms in this country are engaged in manufacturing it, and some products of it are imported from Europe. But while the making of it is open to all, and it is made extensively by different parties, yet it does not follow, as it might seem to many, that the various preparations are of equal value. On the contrary, not a few of them are inert and worthless. There is scarcely any preparation in medicine that requires more care and scientific skill in its manufacture than it. If too great heat be employed, or some other error be committed that a careless and ignorant individual might think was of little importance, the element that changes the starch of the food into dextrine or sugar will be destroyed. It will thus be perceived that such an article, when made in great quantities, in order that all of its elements should be preserved intact, requires very costly machinery, which must be supervised by very competent persons—persons well skilled in chemistry—who will be constantly testing it during the whole process of making it. A number of times we have chemically tested in our office the products of different makers, and have found the large majority of them having no action upon starch whatever. We have in previous numbers of the Medical News explained how the test could be easily made, and would repeat it now, but we have not the space to spare.

We speak of the Extract of Malt at this time, because we frequently hear physicians complaining that, oftentimes, they obtain no beneficial results from its use. It is a favorite remedy with us, and we dislike to have it fall into disrepute, for we feel sure that when prescribed in proper cases, a *genuine* article will never disappoint the prescriber. The article with the name of which we head this article, we know, from actual testing, is a *genuine* one—one that always contains *all* the elements that belong to the preparation. The word *Trommer* does not signify anything in the Extract of a secret character, but is merely the name of the Company manufacturing it, and is employed to distinguish their product from others.

LISTERINE.—A dentist writes us that, having been induced to make use of Listerine in affections of the mouth, from accounts of it he noticed in the MEDICAL NEWS, he had been disappointed in its action. He says that it had proved to be an antiseptic to only a slight extent. Trusting to its effects in this respect resulted, at one time, to his losing a very beautiful and perfect ox's eye which he had secured for dissection. Not being able to begin his dissections upon the eye right away after securing it, he placed in a cup containing about equal parts of Listerine and water, not having the slightest doubt, at the time, but that the eye would be well preserved by the fluid when he would be ready to commence his anatomical investigations. But much to his surprise and disgust, on removing the specimen, after three or four days' time, instead of finding it well preserved and fitted for the knife, he found a stinking, decomposing mass, which he was compelled forthwith to have emptied in the garbage box.

Our knowledge of Listerine has been obtained mostly from what we have seen stated about it in medical journals, and not from personal experience. The manufacturer, we know, has been very active in advocating its claims, and, under such circumstances, a remedy sometimes becomes lauded far more than it deserves. We one time employed it in a case of nasal catarrh, we thought, advantageously; but we are not prepared to say but that as good result might have been obtained from salicylic acid, as our dentist has suggested. The same individual thinks that all the properties, if it has any, contained in Listerine, exist in salicylic to a greater degree, while the latter is far more reliable and cheaper.

But want of space forbids our saying more at this time in regard to Listerine. We will discuss it more at length at another time, giving the experience of some of our subscribers with it.

SALICYLIC ACID AS A PROPHYLACTIC AGAINST CHOLERA.—Dr. Beaudon says that his experience with Salicylic Acid as a disinfectant is so satisfactory that he would recommend it to be generally employed as a prophylactic in case a country is threatened with cholera. He proposes that it be used as follows: Make a solution of ten grammes of the acid in two hundred grammes of alcohol—add a teaspoonful of this solution to a glass of water. Bathe, wash the hands, and rinse out the mouth several times a day with this mixture. Let all flannel and woolen cloth be impregnated with it. These precautions apply particularly to physicians who are exposed to cholera. Thirdly, take a teaspoonful of the solution with each meal. The objection may be raised that the microbe is taken into the system by the respiratory organs. He does not discuss this idea, but limits himself to the statement that, whatever may be the channel of introduction of the microbe, it will not find a very fertile field for development if the individual has used and still uses a substance which opposes the entrance and propagation of the poison.

POISONOUS SOLDER IN CANNED GOODS.—Dr. John G. Johnson, having had six cases of poisoning from the eating of canned tomatoes, read an excellent paper on the subject before the New York Medico-Legal Society, which is published in the *Sanitarian* for June. He concludes, after a careful review of the subject, that:

1. These were not cases of sickness from spoiled tomatoes.

2. They were cases of corrosive poisoning from muriate of zinc and muriate of tin.

3. This poisonous amalgam must be abandoned.

4. Exemplary damages, "at the discretion of the jury," will be sustained by the courts for this reckless tampering with human life, in using a dangerous means when a safe one could could be used.

5. The canners have only themselves to thank for the present panic in their business, for they have persisted in the use of this dangerous amalgam, knowing it was dangerous.

6. Every cap should be examined, and, if two holes are found in it, send it at once to the Health Board, with the contents and the name of the grocer who sold it.

7. Reject every article of canned food that does not show the line of resin around the edge of the solder on the cap, the same as is seen on the seam at side of the can.

8. "Standard" or first-class goods have not only the name of the factory, but also that of the wholesale house which sells them, on the label. "Seconds," or doubtful, or "re-processed" goods, have a "stock-label" of some mythical caning house, but do not have the name of any wholesale grocer

on them. Reject all goods that do not have the name of some wholesale firm on the label.

9. A "swell," or decomposing can of goods, can always be detected by pressing in the bottom of the can. A sound can, pressed, will give a solid feel. When gas from the decomposition of the food is inside the can, the tin will rattle by pressing up the bottom as you displace the gas in the can.

10. Reject every can that shows any rust around the cap on the inside of the head of the can.—*International Review of Med. and Surg. Technics.*

COMPLIMENTARY.—Dr. J. S. R. Hazzard, of Springfield, Ohio, a physician of high standing in Clarke County, unsolicited by us, recently wrote us a letter containing some quite flattering remarks. He has been a subscriber to the MEDICAL NEWS almost from its commencement. We quote as follows:

"I take so many papers, periodicals and journals, each devoted to its peculiar sphere of this many-sided life, that I get *mixed up* sometimes in regard to the payment of some of them. . . . . I propose to continue the MEDICAL NEWS right on. It has often brought light and strength and courage and solace to me when called to pass through dark and dangerous paths in the discharge of my professional duties. And now looking back over *thirty-four years* of professional activities, in which the struggle for the 'survival of the fittest' has been sharp and continuous, I am constrained to confess that I owe as much of whatever success I have attained to the careful reading of the MEDICAL NEWS as to any other source. Long may it live."

THE *Glasgow Medical Journal* contains a report of the removal, by Dr. Patterson, of an exceedingly large stone from the bladder of a man. It measured, in its long circumference, ten and five-eighths inches, and in its short circumference eight and one-eighth inches. Its weight was fifteen ounces.

DR. GIDDINGS, of Maine, reports (*Medical Record*) an ovarian tumor developed within eighteen months in a woman ninety years old. He fitly queries: "Who has seen so old a person develop an ovarian tumor?"

THE
CINCINNATI MEDICAL NEWS.

VOL. XVII. No. 203. Old Series. | NOVEMBER, 1884. | VOL. XIII. No. 11. New Series.

Original Contributions.

A Case of Dupuytren's Contraction of the Fingers*.

POLYCLINIC SERVICE OF CHAS. K. MILLS, M. D.

Reported by Dr. WM. MUIR ANGNEY, Clinical Assistant.

Read before the Philadelphia County Medical Society, September 17, 1884.
Reported for the MEDICAL NEWS.

DR W. W. KEEN, in one of the most valuable papers on "Dupuytren's Contraction,"† published in recent years, states that he was able to find, exclusive of his own cases (twenty-six in number), only ninety-five other recorded cases. It has been, therefore, thought worth while to put the following additional case briefly on record. The history points to a rheumatic or rheumatico-gouty origin of the affection.

H. B., æt. 70, married, born in Ireland, had one sister with a rheumatic history. His father died of pleurisy, and he did not know the cause of his mother's death, or any details of the health history of either parent. He denied syphilis positively, and never injured his hands in any way. He has kept a trimming store for twenty years, and before that time was in the grocery business. He was in California thirty-five years ago, being one of the "forty-niners." He slept in a tent, and mined for gold for twenty months, but apparently did not suffer, or at least not immediately, from the exposure, For fifteen years he has suffered with rheumatic or rheumatico-gouty pains.

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* We are under obligations to Messrs T. Blakiston, Son & Co., Publishers, of Philadelphia, for the cuts which illustrate the subject.

† "The Etiology and Pathology of Dupuytren's Contraction of the Fingers," A paper read before the Philadelphia County Medical Society, By W. W. Keen, M. D.—*Philadelphia Medical Times*, March 11, 1882.

Twelve years ago the little finger of the left hand began to curve inward; contraction soon followed in the ring, and later in the middle finger. The little finger of the right hand also gradually contracted.

When he presented himself at the Polyclinic, the joints of his hands and fingers were found to be enlarged. The little finger of the right was strongly flexed; but the trouble was much more marked and extensive in the left hand, the little and ring fingers being drawn in so as to almost touch the palm of the hand, the second finger also being much contracted. (See fig. 1.) Ridges were found running to these fingers across the palm. The general strength of both upper extremities was about the same. He had never had any special treatment for the contractions.

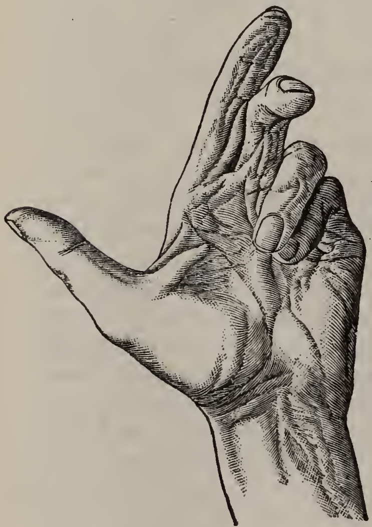

FIG 1.

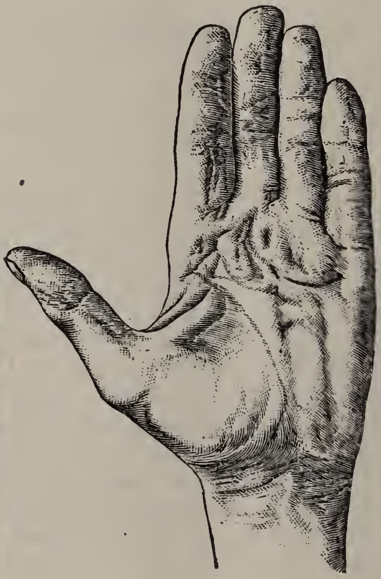

FIG. 2.

Subcutaneous incisions were made into the palmar fascia and its cord-like prolongations, by Dr. John B. Roberts. In all, eight incisions were made at a single sitting. The hand was straightened, and kept in a digital splint for six weeks, manipulations also being used. The splint was then used only at nights, and galvanism was applied in the form of the continuous current through the hand, and the current interrupted to the interossei and other muscles. The hand is now capable of being straightened, as shown in fig. 2, and he also has much improved use of it in flexion and extension.

Delusional Monomania.

REPORTED BY M. H. BOCHROCH, M. D., CLINICAL ASSISTANT.

Read before the Philadelphia County Medical Society, September 17, 1884.

G. B., æt. 47, white, married, a cabinet maker, and Prussian by birth, came to the Polyclinic alone, and complained that he had been poisoned by his wife. He said that he suspected his wife of putting poisons in his food. After taking milk, the day before coming to the service, while at work, he experienced a pulsation of vessels over the whole body. He said that he had been in this country for a year, and was perfectly well until the arrival of his wife, when he began to have weak spells, and also noticed a discoloration of the urine. He was the father of ten children, and thought their mother was trying to mislead them. He heard noises in the rooms which his daughters occupied at night; and was in a peculiar condition; for, though awake, he could not get up and find out the cause of the noises; there seemed to be some peculiar power over him, which kept him down. His wife had a goitre, which she painted with iodine, and he believed that she also mixed this with butter in preparing his meats. She got him so confused in Germany that he was unable to take care of his stock of goods, and in this way cheated him out of his fortnne; His wife, he said, was from the chief wine-raising district of Europe, and was an expert in the mixing of wines, having learned the business from her father He believed that his brother-in-law was affected as he was himself, through her doings.

He had noises in his ears, like the escape of steam, but never had heard any voices. He was sure that his wife was not true to him; that she went with other men. He had tried, in Germany, to obtain a divorce on the strength of her attempts to poison him, but the judge, much to his disgust, ignored the case and advised him to come to this country. His wife followed him in about a year.

When he was under the influence of her spells, he thought his sexual powers were injured. He was confident that she used some of her menstrual discharge to produce this effect.

The wife of the patient was sent for, and said he had been out of his head for fifteen or eighteen years. He sometimes got violent spells and struck her. He suspected everybody coming to the house. He had bought a book on poisons, and had tried to study the diseases which they produced. Just now he thought that his peculiar symptoms were due to opium poisoning. He had no tremor; apparently no loss of memory. He had never been a hard drinker; he drank beer and wine at times, but not to excess. He was an intelligent man outside of his delusions. Nothing of a satisfactory character could be learned with regard to his family history.

DISCUSSION ON CASE OF DUPUYTREN'S CONTRACTION.

Dr. Mills: Many surgeons refer all such cases to traumatism. The chief interest in them is the pathology and causation. I believe that most cases of true Dupuytren's contraction are due to rheumatism or rheumatic gout. Hysterical contraction sometimes resembles it, but continuous nerve pressure on the mediam nerve will relax this form, although it will subsequently return. Some of the cases called athetosis also resemble it. Here there were no ridges across the palm, and the contractions may be readily overcome temporarily.

Dr. John B. Roberts: This case shows facts in opposition to the theory that adopts traumatism as a causation, for he now is under treatment for chronic arthritis of the fingers. It is a pity that the name Dupuytren is given to this form of contraction, for if we call it contraction of the palmar fascia we at once separate it from the contractions of tendons. A proof of its rheumatic origin is the frequency of its occurence in those who do no manual labor.

Dr. Angney: The history of the case shows no traumatism. The man had been a shopkeeper and had the trouble ten or twelve years before consulting a physician. Rheumatism and gout were concerned in the etiology.

DISCUSSION ON DELUSIONAL MONOMANIA.

Dr. Henry Leffmann: The case just detailed has several interesting points. Public attention has lately been attracted to this class of delusions, because in some judicial investigations the experts have expressed opinions which are, unfortunately, not accepted by even many intelligent individuals, and especially the newspaper men. The result has been much severe and unjust criticism of the opinions given by the experts. I am specially interested in this note, however, because the subject of it called upon me and desired to have analysis made of the articles of food. I soon saw by his conversation that he was a victim of delusion, and made some excuse for not performing the work. Thinking that it would be advisable to have him examined by an alienist, I directed him to Dr. Mills, but when I mentioned the name, he said he had already consulted him, and on referring to Dr. Mills' record at the Polyclinic, I found the case detailed. I have seen a number of these cases in this way, that is they have come to have analyses made. This man was very polite and tractable; but in some cases the applicant has been alarmingly demonstrative when detailing his imaginary woes. One feature has struck me as important, namely, the helplessness of these people under their delusion. They seem to not appreciate the suggestion that if they think they are being poisoned at home, they should cease to eat there. This, which would be the method that a sane man would pursue, is never pursued by the deluded ones.

DR. CHAS. K. MILLS: This case, though it would not be a novelty to a body of specialists in nervous or mental diseases, may be interesting to a general society of physicians, and so I advised Dr. Bochroch to present it for your consideration. About such cases there may be, and often is, difference of opinion, even among members of the medical profession. The delusion of poisoning is frequently associated with that of marital suspicion. There is a form of alcoholic insanity, where the delusions are present, with others also relating to the sexual organs. I do not think this was a case of alcoholic insanity, however, but one of delusional monomania. There is a certain amount of danger in such cases, and of this we, as physicians, should be cognizant.

A Case of Frühjahr-Catarrh.

BY HOWARD F. HANSELL, M. D.

Read before the Philedelphia County Medical Society, September 17. 1884.

MICHAEL WOOD, æt. 12, applied at the Southwestern Hospital, in the early part of July, on account of inflammation of the eyes. His father, who accompanied him, stated that every spring, as soon as the cold weather had gone, Michael's eyes began to grow red. This statement is indefinite, but, as far as I can learn, is strictly true, for its advent is simultaneous with the onset of warm weather, whether it be in March or delayed until May. The eyes slowly grew worse during four weeks, when the acme was reached. The patient should be seen in the middle of the summer; then the disease is at its height, and the eyes present a remarkable appearance. However, the fall is not yet far enough advanced to have obliterated all the characteristic signs of his affection. These peculiarities are described by Arlt in his "Klinische Darstellung des Auges," and by Saemisch in Graefe and Saemisch's "Handbuch der Augenheilkunde," in almost the same words. There is an elevation of the edge of the cornea, caused by infiltration of a gray, yellow pulpy mass. On the limbus or margin are found small, gland-like, solid, light-gray or yellow, somewhat transparent bodies, which appear on the nasal or temporal side, or both together, and slowly encroach on the bulbar conjunctiva. As they grow along the edge, they advance on the transparent part of the cornea, and are sharply lined from it, while they imperceptibly fade into the conjunctiva. They are tough, immovable deposits, and do not yield to the probe. The conjunctiva in pronounced cases has lost its transparency, and its enlarged vessels run into the elevations on the cornea. The color of the conjunctiva differs from that of inflammation, as well as from the normal; it is steamy, dull, pale red, wanting the freshness and liveliness of acute catarrh. This is due to the light serous infiltration of the part.

This condition of the conjunctiva is called by German authors, "Frühjahr Catarrh," and is without a name in English. The title is a bad one, because the affection is not a catarrh, neither does it exist only in the spring. It is a periodic or annual hypertrophy of the conjunctiva and the neighboring section of the cornea. An acute catarrh may be associated with it, as was in this case during part of July. This rapidly disappeared under treatment. The hypertrophy, however, resisted all treatment. For several weeks I kept the eyes under atropia, and three times each week I applied a crystal of sulphate of copper to the lids without the slightest benefit. Since August 1 the treatment has been stopped. The disease continues to appear regularly at the beginning of warm weather, reaches its maximum intensity in four weeks, disappears after the first snow, leaving no trace. This is repeated for a period usually of four years, although it may run on many years longer.

Treatment has little or no effect; the only references which I have been able to find are the two mentioned above, although I have searched the works of Stelwag, Carter, Schweigger, Jacobson, and Soelberg Wells.

DISCUSSION ON FRÜHJAHR-CATARRH.

Dr. E. O. Shakespeare: I have seen this affection a few times. It is one which I have supposed to be peculiar to the spring of the year, having in my mind two cases that so occurred, but I have seen one that appeared semi-annually. As to the pathology, I am at a loss to form an adequate understanding.

Dr. Sajous: I would like to know if there was much pruritus.

Dr. Hansell: These cases occur very rarely in this country. Dr. Harlan, to whom I sent the case, in his many years of clinical experience at Wills' Hospital had never seen a single instance of it. Neither have I been able to find any reference to it among American writers. In answer to the question as to its connection with hay fever, I may say that this disease has a different history and pathology, and in the reported cases has been associated with no other affection. It bears a closer resemblance to pterygium than to any other eye disease.

DISCUSSION ON CASE OF REMOVAL OF FOREIGN BODY FROM THE EYE.

Dr. E. O. Shakespeare: This is a case of more than ordinary interest from many aspects, and Dr. Landesberg has rightly called it a triumph of conservative surgery. It is well known that a foreign body may remain in place many months or years before showing sympathetic irritation. The whole case, while an illustration of the benefits of conservative surgery, also shows the advisability of gaining the patient's consent to enucleation, if necessary, before the search has begun. These cases may, however, cause, in the minds of the laity, and members of the general profession, erroneous impressions of the absence of danger from foreign bodies in the eye.

Dr. Roberts: We should give Dr. Landesberg great credit for his acumen in supposing that he could remove the foreign body. I always warn patients who come to me with lost vision from bodies in the posterior portion of the eyeball, of the danger of future sympathetic ophthalmitis, advise them to have enucleation performed, unless they live in the portions of the country where skilled ophthalmologists are found. This case will incline me to make exploratory procedures before enucleation.

Dr. W. S. Stewart: What was the nature and size of the body?

Dr. Landesberg, in closing the discussion, said: I take exception to the practice of all those surgeons who resort, without further delay, to enucleation in instances of injury to the eyeball with loss of vision. In all cases in which there is no foreign body in the interior of the globe, we have to abstain from operative interference, and watch the eye with care. There is no danger in waiting. Sympathetic irritation is not likely to occur immediately after the injury. Enucleation itself is not so harmless as it is generally represented in text-books. It may sometimes give rise to sympathetic irritation, and I would impress this fact upon the general practitioner. It is not indifferent to the patient whether his blind eye is removed or not. A blind eye looks, in the greatest majority of cases, better than the artificial one, and we have to give to the patient the benefit, as long as it is compatible with the safety of the other eye. It is a matter of æsthetics. If a foreign body has penetrated the eyeball, the first indication is to remove it with an electro-magnet. If it can not be found, and there is traumatic cataract, I would at once remove the latter—the body may be imbedded in it. Should this removal fail, I advise enucleation at the same sitting. The foreign body extracted in this case was about 3 mm. long, and of metal.

DISCUSSION ON METHOD OF CURING CROOKED NOSES.

Dr. Jurist: I have been so unfortunate as to have operated on a few cases of divided septum, but generally found that after two or three months the septum had returned to its former position. I hope Dr. Roberts will state whether his cases remained permanently straight.

Dr. Roberts: If free incisions are made, the deviation ought not to return. If, after operation, the parts are held in place two weeks, the chances are that they will remain in the new position as surely as after the original accident.

Dr. Jurist: I would not like Dr. Roberts to understand that I did not fracture the septum. I do so in all cases—using the stellate punch—and do not rely simply on a plug.

DISCUSSION ON CASE OF POISONING BY SOOTHING SYRUP.

Dr. Joseph D. Schoales: I remember a similar case—a child sixteen months old—with which I sat up a whole night. It recovered under a treatment for opium narcosis. In another child, five months old, the symptoms resembled those produced by a teaspoonful of laudanum. Fifteen drops of the syrup had been given. Neither case resulted in death.

Dr Hirsh: I recall a case in which trouble and annoyance had arisen from a physician's prescription being marked "poison" by the druggist. This occurred after a recent fiasco in which such notice was ordered in each case by the the Coronor's deputy, an interpretation of the State poison law since reversed by the Court. An explanation was necessary before the patient consented to take the medicine and the physician back into the family.

Foreign Body in the Interior of the Left Eye, of Three Years' Duration.

BY M. LANDESBERG, M. D.

Read before the Philedelphia County Medical Society, September 17, 1884.

I HAVE the honor to exhibit to you, Mr. President, to-night, one of the most interesting cases I have ever had the good luck to meet with in my practice.

This gentleman, 41 years of age, had the misfortune of being struck by a splinter of metal in his left eye, July 13, 1881, about six weeks after he had come to this country. Blindness set in within ten minutes after the accident. He applied on the same day at Wills' Eye Hospital, where he was advised to have the eye removed at once. Not quite relishing this prospect, he went to the Jefferson Medical College, where he was admitted for treatment after he had refused the enucleation, which was also at first proposed to him. There he remained for six weeks, during which time the incident inflammation passed off entirely. The globe was preserved, but vision was not restored. He enjoyed good health until March, 1882, when the first symptoms of sympathetic disorders began to develop in the right eye. Asthenopic troubles made their appearance, followed by sensitiveness to light and photopsies. The acuteness of vision gradually diminished as well for distant as near objects.

And now he began his wanderings from one oculist to the other; he hardly spared one, if I have to believe his testimony. Nothing was done for the benefit of the right eye, which changed from bad to worse. Enucleation of the left eyeball was pronounced by all authorities as the ultimate ratio by which the condition of "nervous irritation" in its fellow might possibly be checked.

When I saw the patient for the first time, September 5, 1883, I ascertained the following condition:—

No irritation whatever in either eye. Vision of the right eye was 10–20; with convex 40, 10–15. Pupil of normal shape, but of somewhat sluggish reaction; accommodation is impaired in consequence of paresis of the accommodative muscle. With naked eye patient reads Jaeger 13 at about fifteen inches distance: with the help of convex 10, Jaeger 3 at eight inches. Field of vision and tension are normal. There exists an eccentric positive scotoma, outside of the point of fixation. The subjective complaints are of photopsies and scintillations. Ophthalmoscopic examination reveals no morbid changes.

Left eye counts fingers at two feet peripherically outward. The cornea shows a linear horizontal cicatrix on its lower third, running from the outer corneal margin toward the pupilary region. The lower half of the iris is disorganized and presents in its middle a funnel-shaped depression and close to its temporal border a mound-like elevation. The pupilary margin of this segment of the iris is connected by three blackish filaments with the dense opaque whitish membrane, which stretches across the whole pupilary plane, filling up the latter to the greatest extent, even after the pupil had been dilated by a mydriatic.

The presence of the above described "*depression* and *elevation*" in the lower half of the iris, which were situated just opposite the corneal scar, aroused my suspicion that the foreign body might possibly lie imbedded in this region. An operation for the removal of the foreign body seemed to me to be a matter worth trying at first, by which nothing was risked and everything might be gained. The enucleation of the eyeball I regarded as the last expedient, to which I would resort if I should be baffled in my intentions.

I spoke with the patient to this effect, telling him that I must have full liberty to act according to my best judgment, and to be allowed to enucleate the eyeball if I should fail to extract the foreign body.

He took time for deliberation and reflection until May 19, 1884, when he returned in the following condition. In the meanwhile he had repeated and completed his circuit among the specialists.

Vision of the right eye 10–30; with convex 60, 10–20; complete paralysis of the muscle of accommodation. With the naked eye he reads Jaeger 16 at eighteen inches distance; with the help of convex 10, Jaeger 5, at ten inches. The shape of the pupil is normal, its reaction sluggish. The visual field is somewhat limited in the upper sector, and its outer-upper quadrant is occupied to the greater extent by the eccentric positive scotoma. Patient sees all objects as through a veil, and is greatly annoyed by photopsies and scintillations, and by the perception of a bluish flame, which constantly occupies the centre of the visual field. He complains besides of the most various abnormal sensations in and around the globe, of a feeling of pressure in the depth of the orbit against the eyeball, of pains in temples and forehead, of sensitiveness to light, etc.

The ophthalmoscopic examination reveals venous hyperæmia of the retina. Optic disk is pinkish red, of somewhat indistinct tints.

The condition of the left eye has not changed.

I operated upon the left eye in the following manner:—

I made a section at the sclero-corneal border, just within the limits of the morbid changes in the iris, introduced Liebreich's iris-forceps, grasped the whole segment of the iris, which contained the "*depression* and *elevation*," drew it out and cut it off. No foreign body was found in the excised piece of iris. Now I again introduced a pair of forceps, caught the membrane, which covered the whole pupilary region and managed to remove it entirely. On inspection a small oblong piece of metal was found imbedded in the posterior surface of the lower end of the membrane. Considerable hemorrhage followed the operation and a few drops of vitreous escaped from the wound.

A compressive bandage was applied on both eyes.

No reaction whatever followed the operation and the healing process took place most favorably. The bandage was removed on the third day.

When I examined the patient on the eighth day, the condition was as follows:—

Vision of the right eye 12–15; with convex 72, 12–12; Jaeger 12 is read at fourteen inches distance, with the naked eye. Subjective complaints greatly abated. No photophobia and lachrymation. Scotoma somewhat more transparent.

The left eye shows a very fine artificial pupil. The hemorrhage in the anterior chamber is only partly absorbed. Vitreous contains blood and dense floating opacities.

This remarkable improvement in the condition of the right eye had taken place without any other influences having been brought to bear upon but the extraction of the foreign body. I abstained from all therapeutics during the eight days, and no more forcible proof of the sympathetic nature of the affection can be adduced than the spontaneous recovery after the cause of irritation had been removed.

An alterative and derivative treatment, which I now instituted, had the following effect:—

Vision of the right eye is at present 12–8. The pupil is of normal reaction, the accommodative paralysis has greatly improved. His punctum proximum is at fifteen inches, and he reads, with the help of convex 10, the finest print (Jaeger 1) at six inches distance. The visual field is normal and the scotoma has contracted to an oblong rod of about two inches in length and of one-eighth inch in diameter. This scotoma is transparent and does not interfere with vision. All subjective complaints and perceptions have vanished, with the only exception of the bluish flame, which, however, but faintly and only occasionally appears in the visual field. Background of the eye is normal.

Vision of the left eye is 1–16, and may possibly improve still more in the future. There still are large floating opacities and some bloody streaks in the vitreous. The background of the eye can only dimly be seen. There are morbid changes in the retina and choroid, due to inflammatory processes which had taken place in these parts.

You have, gentlemen, before you a case in which a foreign body had penetrated into the eyeball, causing traumatic cataract and consequent morbid changes in the ureal tract and retina. The lens is absorbed, and a thick, opaque membrane (secondary cataract) obstructs the whole pupilary region. The foreign body remains imbedded in the posterior surface of the lower end of this membrane for nine months, without doing any harm. Then the right eye begins to show symptoms of sympathetic trouble. Amblyopia and paralysis of the muscle of accommodation develop. And while these morbid changes of the most serious character take place, no inflammation proper, no objective irritation, can be observed in either eye. The injurious influences, which have continued to work for two years, are checked at once by the removal of the foreign body. The secondary affected eye makes a marvelous recovery, which far surpassed all my hopes and expectations. Such a vision of 12–8 is only met with in very rare instances; and the primary injured eye, which was not considered worth while being preserved, improves to such a degree as to enable the patient, should he have the misfortune to lose his right eye, to find his way in the streets, to recognize faces, to distinguish features, and eventually to gain a living by peddling, etc., if need should be This case may justly be called a triumph of conservative surgery.

Translations from Our Foreign Exchanges.

Translated for Medical News, from the French by Dr. Illowy, Cincinnati, Ohio.

DISEASES OF THE KIDNEY.*

A Nosographic Study of Nephritis—Subacute and Chronic.

BY PROF. CORNIL.

I.—Classification of Nephritis.

It is necessary for an understanding of this paper to declare at the outset what we understand by subacute and chronic nephritis, and to make the best possible classification, for the subject is one upon which there are great differences as yet.

We leave aside the acute nephritis, that is to say, such as are observed in certain forms of intoxication (poisoning by cantharides) and infectious fevers, (erysipelas, pneumonia, typhoid fever, diphtheria, variola, scarlatina, etc.) But it is indispensable to state here that these are diffused nephritis, that is to say, extended to the secretory portion of the kidney, to the labyrinth, to the glomeruli, and that they affect more or less irregularly at one and the same time the cells of the tubuli contorti and of the straight tubes, and that they are accompanied by a diapedesis more or less marked into the areolar tissue.

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*Communicated to the Congress at Copenhagen.

It is difficult to separate subacute nephritis from chronic nephritis, because they are excited by the same cause, the action of cold, alcoholism, scrofula, etc. There is, however, another class of exciting causes, which gives rise to a chronic nephritis only; that is artero-sclerosis, gout and lead-poisoning. These last should be formed into a class by themselves by reason of the systematization of the lesions which they excite in the kidneys.

Some years ago, the classification of chronic and subacute nephritis seemed definitely settled. There were the parenchymatous nephritis on one hand and the interstitial nephritis on the other. But things are very far from being so simple.

In the parenchymatous nephritis in the large, white, smooth kidney, there are found, in fact, lesions of the glomeruli, a glomerulitis more or less intense, fibrous atrophies of glomeruli, a thickening of their capsule and of the membrane proper of the tubuli. It is true, the lesions of the cellules are predominant, but in certain particular forms of old parenchymatous nephritis, the atrophy of a certain number of tubes, the new formation of new connective tissue, determines a granular or non-atrophied state of the kidney; these are the white, granular kidneys, of normal volume or hypertrophied.

On the other hand, it is rare not to find an affection of the epithelium in every form of primitive interstitial nephritis.

In place of the expression parenchymatous or epithelial; we propose to use the word *diffuse*, (diffuse nephritis) which expresses better the idea, that all the tissues of the kidney are affected, in diverse degrees, it is true, and that the lesions are extended irregularly to all the constituent elements of the kidney, in the tubes, the glomeruli and the connective tissue.

The opposite of diffused nephritis we shall call *systematic nephritis*, those forms in which the lesions are regularly distributed, following a system of the uriniferous canals as in saturnine nephritis, or the vessels as in nephritis of vascular origin. These two forms correspond to interstitial nephritis or renal cirrhosis, the first to interstitial nephritis or glandular cirrhosis, the second to interstitial nephritis or vascular cirrhosis.

Such is the division we have adopted in our *Etudes sur la pathologie du rein* (Studies on the Pathology of the Kidney), published in connection with Dr. Brault.*

Acute diffused Nephritis	With predominance of the congestive and inflammatory phenomena. With predominance of the phenomena of diaphedesis. With predominance of the lesions of the glomeruli.
Diffused Nephritis subacute or chronic.	*a.* With predominance of the lesions of the glomeruli. *b.* With predominance of the lesions of the epithelium. *c.* With predominance of the lesions of the connective tissue.
Systematic Nephritis (Interstitial).	Cirrhosis of glandular origin, (saturnine, gout). Cirrhosis of vascular origin, (interstitial properly so-called.

II.—Anatomical Characteristics of Chronic Nephritis.

DIFFUSED NEPHRITIS.—Despite the most unexpected anatomical variations which the kidneys present in chronic albuminuria, variations which are in accord with the causes of the albuminuria, and with the pathological antecedents of the patients, they can be arranged without much artifice under the following three heads.

a. Diffuse Nephritis with Predominance of the Lesions of the Glomeruli.—The malady terminates rather rapidly after a duration of some weeks or from one to two months, for the intense lesions of the glomeruli preventing the normal secretion of urine, diminishes the quantity of this liquid, and gives rise rapidly to uremic symptoms incompatible with life. At the autopsy the kidneys are found congested, of normal volume, or very slightly hypertrophied; sometimes their surface is marbelized red and white, or the cortical substance presents a reddish-yellow color. Sometimes we recognize that the glomeruli are, larger, more salient than in the normal state; but in many cases it is necessary, before we can pronounce an opinion, to resort to a microscopic examination. On the sections we can perceive the lesions of the glomerulitis affecting the epithelium and the membrane of the capsule, or on the epithelial covering of the tufts of the glomeruli. In place of the flat epithelium we find one or more layers of polyhedric or spheroidal salient cells, detached or adherent to the capsule by one of their extremities, often irregular, polyhedric by reason of reciprocal pressure, forming a mass at the mouth of the uriniferous tubule. The nucleated lamellæ which cover the tufts of the glomeruli, present modifications, which have been well described by Langhaus. Their nuclei swell, the protoplasm assuming various shapes, that of a crescent, a skull-cap, a pediculated cell, a sling, that of a club, the hammer of a bell, adhering by one extremity to the vascular tuft. These cells become detached at a given time and fall into the cavity of the glomerulitis where they accumulate. An analogous proliferation takes place between the loops which constitute the vascular bouquet; the permeability of the vessels becomes greatly impaired; the capsule becomes thickened; in place of the thin membrane constituting the same in the healthy state, we find a series of lamellæ layers, and sometimes even a quantity of lamina and fibres of connective tissue, forming a sort of reticulated tissue, whose meshes are filled with free or agglomerated cells, round and flattened and fusiform, adherent in places to the fibrous fasciculi.

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* *Etudes sur la pathologie du rein*, by Cornil and Brault, 8vo, with 16 plates, Alcan, publisher, Paris, 1884.

These lesions are propagated more or less to the connective tissue, which accompanies the vessels of the hilus of the glomeruli and to that bordering on the capsule.

The lesions of the cells of the tubuli contorti are relatively less manifest than those just mentioned; nevertheless, we find an intra-tubular exudation, a granular state of the cells, cylinders, etc.

The urine, which is rather scant, is generally deep in color, brown or almost black, hematuric, when there is an inflammatory attack. The quantity of albumen may reach 6, 8, 10 and even 12 grammes to the litre.* It contains a considerable quantity of hyaline cylinders, waxy or colloid, white and red globules. The quantity of these elements varies from day to day, but is never altogether wanting.

Œdema comes on early in nephritis, mainly involving the glomeruli (nephritis glomerulaire). Death is generally preceded by eclamptic seizures and coma.

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*1 gramme = 16 grs. One litre = 35 oz. fl.

b. Chronic Nephritis with Predominance of the Lesions of the Epithelium.—The kidney is generally hypertrophied, the cortical substance smooth, marbled with red or white spots, more frequently white or yellowish-white and opaque, does not adhere to the capsule (large, white, smooth kidney). We find in this form all the lesions of the epithelium, which we can not completely detail here, the vesicular state of the cells, the granular condition, the exudation covering them on their free surface, exudation in form of hyaline balls or of a reticulum, filling up the dilated cavity of the tubes. Often the cells of the straight tubes are diminished in height, shaved off, as it were, finely granulated, their borders merged into one another, so that it forms along the length of the hyaline membrane, a thin layer of homogeneous protoplasm, non-segmented granular, studded with ovoid nuclei, in the grand axis parallel to the surface of the tube. This protoplasm often presents fatty granulations, dispersed in one or two layers, very close to the hyaline membrane of the tube.

The exudation of cellular or sanguineous origin, secreted or poured out into the lumen of the tubuli contorti, stretches itself out and becomes condensed in the tubes of Henle, from which it emerges, presenting very frequently the form of a corkscrew, which can be so easily discovered in the sediment of urine treated with osmic acid.

In the large, white kidney with smooth surface, fatty degeneration of the cells predominates. It manifests its most advanced stages by a hypertrophy of the cells filled with fatty granulation and by hyaline drops.

At the same time we encounter disseminated lesions of the granules, frequently fibrous glomerulitis, a thickening of the hyaline membrane of the tubes, and sometimes a subacute inflammation of the connective tissue.

The symptomatology of this variety of diffused nephritis, presents the classic type of Bright's disease with generalized anasarca.

The urine, as a rule, rather scant, habitually pale, deepens in color when there is a congestive seizure of the kidneys. It contains constantly hyaline cylinders, colloid, hard; but the urinary deposits are far from being the same every day. In the daily examinations of these deposits, we find at times only lymphatic cells and a few scarce cylinders, whilst at other times, we find the cylinders in large quantity, of a deep color, mixed with red globules, and the detritus of cells undergoing granular and fatty degeneration.

The hyaline cylinders are covered with granular lymphatic cells, or even fatty granulations forming a sort of skin. The malady may last several years; even 8 or 10. Its rapidity, its fatal ending stands in direct relation with the severity of the lesion of the glomeruli.

c. Diffuse Neperitis with Predominance of the Lesions of the Connective Tissue.— In this variety the kidney is granular and adherent to the fibrous capsule, sometimes hypertrophied, at other times, atrophied. The granulations, more or less voluminous, are opaque, and bordered by a zone of congestion and by varicose veinules. The salient granulations, the opaque streaks, which are on the surface of the kidney or on a section, are formed by voluminous uriniferous tubes, whose cells are usually in a state of fatty degeneration. Around these the adjoining tubes are atrophied, presenting small cuboid cells, and are surrounded by a condensed, thickened connective tissue. This irregular sclerosis, which surrounds the opaque granulations, must be regarded as secondary to the parenchymatous nephritis. The development of this connective tissue, is in proportion to the destruction of the epithelial cells and the obliteration of the tubes. The production of connective tissue does not sensibly modify the symptomatology of diffuse nephritis, and can, in no way, assimilate it to the clinical type of vascular cirrhosis, as it has been described by English authors (S. Wilks, G. Stewart, Dickson) and by Lecorchi, Lancereaux and Charcot, in France.

III.—Systematic Nephritis (*Interstitial Nephritis, or Cirrhosis of the Kidney.*

a. SYSTEMATIC NEPHRITIS OF GLANDULAR ORIGIN.—The type of this form has been furnished us experimentally by the experiments of Charcot and Gombault on lead-poisoning. It is known, that by mixing carbonate of lead with the food of guinea-pigs and rabbits, Charcot and Gombault have obtained interstitial nephritis, characterized to the naked eye by a granular kidney, and to microscopic examination by a collapse of certain number of tubes surrounded by connective tissue containing small cells. The lesion is caused, at its origin, by small calculous infarcta in the narrow tubes of Henle; later on, by an atrophy of the cells of the corresponding tubuli contorti; in consequence of the collapse an interstitial nephritis is excited around them. The granulations of the kidney of the guinea-pig present a perfect regularity. In transverse sections of the pyramids of Ferrein, we see in the centre a fibrous zone with atrophied tubes, at the periphery, a zone formed by glomerulis surrounded by connective tissue and an intermediary zone presenting fibrous patches. Whilst some of the tubes in the fibrous tissue become atrophied, others remain almost entirely healthy, and constitute the salient granulations on the surface of the kidney. In the atrophied tubes the granulations have become very small and cuboid; their clear protoplasm, having lost its streaks and granulations, has lost all the characteristics of the renal cell. Their nucleus becomes highly colored by carmine.

The kidneys of laborers intoxicated by lead, and who have died accidentally at the outset of the saturnine nephritis, have shown to Dr. Brault and to me, the same lesions as those produced by experimental poisoning. The tubuli contorti are atrophied only in patches; the lesion pursues its course along the track of a certain number of them to the glomeruli. They present atrophy of their cells, taking on an indifferent type, and there develops itself at their periphery fibrous tissue containing round and ovoid cells; the blood-vessels are in normal condition in the beginning, even when the renal sclerosis is already well marked. Later on, the vessels may become diseased, and then their coats thicken progressively.

In the guinea-pig the saturnine nephritis does not cause albuminuria. In man, at the outset of this same disease, and although the kidney be already profoundly altered, albuminuria may be altogether wanting or only very slight. But in chronic lead-poisoning in man, we see coming on with the albuminuria, lesions affecting the cells and analogous to those occurring in diffuse nephritis; the abraided cells containing fatty granules, intra-tubular exudations, hyaline globules, and hyaline cylinders. In places there are developed cysts at the expense of the dilated tubes. The vessels are affected with endarteritis and periarteritis; nevertheless, the more voluminous arterioles remain unaffected. Coincident with this nephritis, there has been observed a hypertrophy of the left heart, uratic deposits in the articular cartilages and sometimes even deposits of urate of soda in the kidney.

By the side of saturnine nephritis we place *gouty nephritis*, which also seems to stand in relation with the elimination of balsamic salts, the urate of soda. All the lesions of diffuse nephritis and of interstitial nephritis, may at times be found in the kidney of gouty persons.

b. Systematic Nephritis, or Cirrhosis of Vascular Origin.—Whilst in the preceding nephritis, the inflammation of the connective tissue is consecutive to the granular fatty degeneration and atrophy of the epithelium of the tubuli contorti, in the variety we are now discussing, the lesions of the cells are subsequent to the alterations of the vessels and the connective tissue.

The kidney, strongly adherent to the capsule, reddish or grayish-red, generally very much atrophied, the surface presents marked indentations, and at the same time more voluminous, flattened or rounded and salient granulations. The granulations are, as a rule, semi-transparent, sometimes surrounded by small ecchymoses or interstitial hemorrhages. The cortical substance is very much atrophied, the tubular substance is also, but in a lesser degree. The arterioles of the intermediate substance are rigid and gaping. Cysts are almost constantly observed.

A section of the cortical substance shows that the glomeruli are all more or less affected; their capillary loops are thickened, sometimes hyaline (thoma); the lumen of the capillaries is retracted or obliterated; all the glomeruli are finally transformed into a small nodule of thick, fibrous fasciculi, separated by cells, irregularly compressed and deformed; the capsule lying against the glomeruli is thickened; hyaline, fibrous; the whole glomeruli may be infiltrated with calcareous salts. The collapse of the tubes, the formation of fibrous tissue attain their maximum around the projecting granulations, whilst the tubes contained in the granulations retain their normal volume nearly. In the lumen of the latter, often dilated, we find hyaline globules or colloid exudations, cylinders, etc. They are the point of origin of the cysts. Sometimes the entire cortical substance is made up of small colloid cysts.

That which particularly characterizes this variety of chronic nephritis, is the sclerosis of the arterioles and the small veins, which serve as point of departure and of direction to the inflammation of the connective tissue. The large arteries are affected with endarteritis, and even atheroma; their middle tunic present a refraction as would lead us to believe at the first moment that it had undergone amyloid degeneration. The periarteritis is equally strongly pronounced. This arteritis, like the concomitant phlebitis, may reach such a degree as to obliterate the lumen of the vessels.

The relation of chronic nephritis to the alterations of the arteries, was long ago described by Johnson, and lately again studied by Gull and Sutton, who have assigned to the *arterio-capillary fibrosis* a predominant role. If we have in view only the chronic nephritis, diffuse or interstitial, that have reached their last stage, we are inclined to exaggerate the importance of these vascular lesions, for they are there observed in a degree more or less marked. But, if we take into consideration more especially the mode of evolution, we must narrow the range, and not assign them a predominant influence, except in the category of facts, which are sufficiently numerous, which we have classified under the head of systematic nephritis of vascular origin. Partels, Debore and Letulle have justly appreciated the coincidence of chronic arteritis with renal cirrhosis.

In all the chronic nephritis we observe the development of cardiac lesions. With diffuse nephritis, glomerular or epithelial, there coexist often hypertrophies of the left heart, which at times are quite extensive, with or without lesions of the orifice, often interstitial myocarditis. These lesions seem to us, to be due, according to the opinion of Traube, to an increase in the activity of the heart, necessitated by the obstacle opposed to the blood in the glomerular apparatus. The cardiac lesions are observed, therefore, with greater constancy in diffuse nephritis with predominance of the lesions of the connective tissue.

The systematic nephritis, and particularly those of vascular origin, are also intimately connected with the alterations of the heart and large arteries. They form part of a complex malady, which affects the whole cardio-vascular system.

The first period of interstitial nephritis, habitually very long, is usually latent. Later on there appear polyuria, nocturnal and diurnal, and the functional troubles of the heart. Œdema and albuminuria are generally wanting. Exceptionally they appear at an early day; they are then always in rapport with cardiac asystoly. In the last stage of these nephritis, when the action of the heart is enfeebled, and the urine becomes less abundant, they are darker in color and contain albumen. Œdema of the extremities and uræmic phenomena manifest themselves. But it is the functional troubles of the heart that predominate the pathological scene. At the autopsy there are found cardiac hypertrophy, myocarditis, frequently lesions of the cardiac orifices, arteria atheroma, congestion or pulmonary aplopexy, and a mottled liver.—*Tribune Medicale.*

Selections.

New Views on Cirrhosis of the Liver.

Up to the present time, nothing seems to have been better determined than that the primary change in cirrhosis of the liver is a chronic inflammatory hyperplasia of the interacinous connective tissue, and that secondarily the cells are destroyed by pressure of the contracting cicatricial tissue. But at the recent meeting of the Society of German Naturalists and Physicians at Magdeburg, Prof. Ackermann read a paper in which he claimed that the primary change is a necrosis of the liver cells, constantly associated with a deposit of fat in their interior. This death is brought about by the action of the poison circulating in the portal blood, be it alcohol, phosphorus or a microörganism. On the other hand, he considers the overgrowth of connective tissue as a secondary, reactive and even salutary process, intended to limit the primary one. The hyperplasia is attended from the beginning by the formation of a large number of new arterial capillaries which not only serve for the nourishment of the liver, but also render the secretion of bile possible for a time longer. This is accomplished by the formation of new biliary passages, which maintain a communication between the parts of the liver cut off, and the pre-existing bile-ducts. It is in consequence of this, according to Ackermann, that jaundice is so rare in cases of cirrhosis. These capillaries, both biliary and arterial, are very distinctly present in the oldest parts of the connective tissue, a fact which is incompatible with the view that the atrophy of the cells is a consequence of the contraction, since, if this were the case, the blood-vessels and biliary capillaries would be destroyed by the process. The liver is smaller, because, as a rule, the destruction of the cells is more rapid than the new formation of connective tissue.

On the other hand, if the connective tissue formation is more rapid than the cell destruction, there must result an enlargement of the entire organ. And this is what always occurs in the first stage, and is sometimes continued, resulting in the morbid product known as that of hypertrophic cirrhosis, which, therefore, according to this view, need not be considered a special form of the disease.

Ackermann admits that there is a very rare affection, which he has seen but once in man and twice in the livers of horses, in which there is a true inter- and intra-acinous hyperplasia of connective tissue which follows the course of the pre-existing vessels, and is not accompanied by the formation of new ones. In this form the cells atrophy from pressure of the neoplastic connective tissue, but the vessels remain patulous, there is no ascites, and to the very end the organ remains larger than the normal, while the surface is smooth instead of nodular.

The discussion was participated in by Profs. Rindfleisch, Strümpell, Aufrecht, Küsner and Schwalbe. The first adhered to the original view of the origin of cirrhosis and the destruction of the cells by the contracting interstitial tissue, but the others seemed to favor the new views of Ackermann, adducing the analogous process in parenchymatous nephritis, in which a primary cellular change is followed by an interstitial hyperplasia, and the fact that liver cirrhosis begins with a primary disease of the liver cells by causing artificial obstruction of the bile-ducts. While it is acknowledged that phosphorus poisoning induces a rapid destruction of liver cells, Küsner adduced the fact that chronic phosphorus poisoning causes a "classic cirrhosis," whence he thinks it also highly probable that in ordinary cirrhosis the primary change is in the parenchyma, while the interstitial hyperplasia is secondary.

There can be no doubt that there is some force in the analogies presented, but, had they been carried a little further, it is not impossible that a different conclusion might have been reached. It is well known that there is a form of interstitial inflammation in the kidney in which there is a primary interstitial hyperplasia and a secondary destruction of parenchyma cells. It is well known, too, that this process is a slow one. Is it not more reasonable to suppose, therefore, that the same cause, operating slowly and in small quantities, produces an interstitial hyperplasia, which, when concentrated and operating rapidly, acts upon the parenchyma cells? At the same time, these researches of Ackermann open a new direction of research and thought which may lead to valuable results.—*Phil. Med. News.*

The Treatment of Diabetes Mellitus.

In the *Col. and Clin. Record*, Dr. Flint, Jr., gives the following summary of treatment. He says:—"The more I study the cases of diabetes that have come under my observation, especially those that are now under treatment, in connection with the writings of those who have faithfully followed the dietetic plan, notably Bouchardat and Cantani, the more thoroughly I am convinced that the prognosis in a recent and uncomplicated case of this disease in an adult is invariably favorable, provided, always, that the proper measures of treatment be rigidly enforced. In the hope of convincing the profession that this statement is reliable, I shall at the risk of what may appear to be needless repetition, give a summary of treatment, with brief statements of the progress of cases that I am now actually observing.

At the outset, patients should be impressed with the fact that they are suffering from a grave disorder, and that everything depends upon their full co-operation in the treatment, which treatment is essentially dietetic. The diet table should be carefully studied, and the diet regulated and carried out absolutely. In case a rigid anti-diabetic diet does not promptly influence the glycosuria, it may be well to subject the patient to an absolute fast for twenty-four hours and follow this with anti-diabetic regimen. This rather harsh measure is suggested by Cantani. I shall not hesitate to employ it in cases in which it may seem to be required, although no such case has yet come under my observation. Systematic daily muscular exercise should be enforced. A moderate system of training on the plan adopted by athletes is most useful; and this, if continued, will do much to render a cure permanent after a return to the normal diet.

The return to a normal diet should be gradual, and during this time the urine should be frequently examined, the rigid diet being resumed at the first reappearance of sugar in the urine, but all alcoholic excesses, the immoderate use of sweet fruits, and any use of sugar, should be interdicted at all times. A patient who has once had diabetes is always liable to a return of the disorder. He must lead a thoroughly careful, hygienic and temperate life. In the words of Bouchardat, "You will not be cured except on the condition that you never believe yourself to be cured."

While I believe that the physician is justified in encouraging patients to expect relief, and even cure in recent, uncomplicated cases, the diet is all important, and its regulation can not be expected to be perfect without professional aid in its enforcement. A diabetic is never safe from a return of his disease, even when he believes himself to be cured; and under no circumstances should he pass more than a few weeks without an examination of the urine.

The arsenite of bromide, or Clemen's solution, appears to be useful. It consists of arsenious acid and bromine dissolved in water and glycerine in such manner that two drops represent the 24th part of a grain of arsenite of bromine. We may begin with 3 drops three times daily in a little water immediately after eating, gradually increasing the dose to 5 drops. This may be continued for weeks and months without producing any unfavorable effects; but the administration of this remedy does not supply the place of the dietectic treatment, which should be enforced in all cases. Cantani recommends lactic acid "lemonade," 1 to 2 drachms to the pint of water and flavored. A rigid diet should be continued for two months, at least. even in the mildest cases of the disease. It may be necessary, in certain cases, to continue it for a longer period, even twelve or more months. There is probably no such disease as intermittent diabetes. In some instances glycosuria occurs during the season of sweet fruits, when they are indulged in excessively, and disappears when the diet is changed; but these are mild cases of diabetes, excluding those in which a transient glycosuria follows the inhalation of irritating vapors, the taking of anæsthetics, etc. Robust or corpulent persons are more tolerant of the disease than those who are feeble or spare, and the glycosuria yields, in such cases, more readily to treatment.

Diabetes occurs at all ages. Bouchardat mentions a case in an infant of 3 years, although the disease is rare before the age of 12. The most unfavorable cases are those which occur before the age of puberty. An adult male presents the most favorable conditions for cure. In old persons, when the disease is of long standing, the dietetic treatment will secure practical immunity from nearly all the distressing symptoms, although the glycosuria may not be entirely removed. A study of any of the diet-papers recommended will make it evident that those who are able to follow the required regimen, without regard to the cost of articles of food, present much more favorable conditions, as regards the prospect of cure, than persons in straitened or indigent circumstances. Diabetes, however, occurs in all classes, and is by no means a rare disease. A hospital devoted to such cases, where the dietetic treatment could be strictly carried out, would be a boon to the rich and poor alike."

Aneurism Cured by Digital Compression in Six Hours and a Quarter.

In the *Brit. Med. Journal*, Arthur E. J. Baker, F.R.C.S., Eng., of University College, reports the following interesting case:

J. D., aged 36, was admitted into University College Hospital, under my care, on August 29th, 1883, suffering from an aneurism of the right popliteal artery. For this he had been already carefully treated, by M. Gandy, of Norwood, with a Skey's tourniquet, applied almost continuously for five weeks. This compression had had no effect upon the tumor. The patient was a particularly healthy, fresh-looking, cheerful man, whose personal and family history were excellent, and showed no evidence of constitutional disease of any kind. He had always been a gardener, working for the last eleven years in a very hilly garden, and doing all the work (which was very heavy) himself. This overstrain appears to have been the only exciting cause for the aneurism in this case. The appearance of the tumor dated from eight weeks before admission, when he first noticed pulsation in the ham. He was unaware of any special strain or other cause for it, and it gave him at the time no pain. Its size had remained the same since first observed. On admission, the swelling was of flattened oval shape, about two inches in diameter; it was tense and elastic, and pulsated strongly. It was seated exactly opposite the middle of the knee-joint, and was slightly red on the surface, having a distended vein on its outer side. There was aching pain on flexing the leg, but none when the limb was at rest in extension; some tenderness on pressure on the tumor was complained of, but none in the thigh or leg. Pressure on the superficial femoral artery arrested all pulsation in the sac.

Instrumental compression having failed, and the man being extremely anxious that something radical should be done, I ligatured the superficial femoral artery in Scarpa's triangle on September 6th, 1883. The operation was done in the usual way under spray, and the vessel was tied with a twisted silk ligature well carbolized, which was cut short and left in the wound. The first ligature broke in drawing the second half of the knot; the next piece of silk bore the strain well, and was placed a quarter of an inch above the first spot chosen. The pulsation in the aneurism was now found to be completely controlled, and no pulsation was felt in it until about five hours later, when it was just perceptible. The tumor gradually shrank, while over it a small artery could be easily felt. The wound healed, without any trouble of any kind, by first intention throughout, the ligature showing no signs of coming away. The patient left hospital on October 1st, looking and feeling very well. At this time there was no pulsation to be felt in the tibial arteries, and no discomfort or pain anywhere. In this condition the patient remained at home until the second week in January, 1884, (about four months). He then noticed a return of pulsation in the right popliteal space, with pain in the knee as this gradually increased. A week later he came up to see me, when I found the aneurism almost, if not quite, as large as before the ligature of the femoral artery, although the latter, below the seat of ligation, was now pulseless, as were also the tibials. Above the ligature the vessel pulsated strongly. Pressure on the common femoral, below Poupart's ligament, completely controlled the expansile stroke in the aneurism, and from this there could be no doubt that it was fed by branches of the profunda, which had been presumably enlarged during the five weeks of instrumental compression of the common femoral, which had preceded ligature. Of course here there could be no question of the ligature having dissolved away, as it was of strong silk, and the vessel was still pulseless below its seat; moreover, pressure on the femoral at this spot did not affect the aneurism, whereas pressure above the profunda did so at once.

I now determined to try digital compression, and, on the readmission of the patient on January 26th, he was put upon a somewhat restricted diet for two days, being confined to bed, and smartly purged. The effect of this treatment in lowering the arterial tension was most marked, and to it, no doubt, some of the good result may be attributed. Then, on the 28th, having a number of most willing volunteers from among the students, I commenced digital pressure of the common femoral at 10:50 A. M. This was carried out with the same attention to details referred to in my former case, and, at 5:15 P. M., all pulsation in the aneurism had ceased finally. Compression was still continued until 8 P. M., and then stopped. The temperature of the limb remained lower than the other for some time, but all discomfort and pain was soon gone. The patient returned home cured on February 5th. Since then, I have seen him several times; there has been no return of the aneurism, which has shrunken up to small size. The pulsation in the tibials is still absent. The man is now engaged in his gardening work as before, without any pain or trouble from his former ailment.

Test for Albumen in the Urine.

DR. WM. ROBERTS, the well known authority on urinary and renal diseases, has an article on this subject in the *Medical Chronicle*, in which he premises that the urine in health contains appreciable traces of albuminoid matter of some kind. All urines contain a diastatic ferment, as shown in their power, to a low degree, of converting starch into sugar. All urines also contain mucin, and generally in sufficient quantity to be detectable by direct testing; traces of peptone and probably of other proteids. Now in testing the urine for albumen our object is to distinguish in kind and quantity the albuminoid matter which is morbid. A reagent which, like tannin, throws down every kind of albuminoid matter, even in the minutest traces, is, *ipso facto*, condemned. The new test for albumen, such as *picric acid*, *tungstate of soda*, *mercuric iodide*, and the *acidulated brine* test, all fall under this condemnation.

The most common cause of embarrassment in testing for minimal quantities of albumen is the presence of mucin in the urine. The new tests give a reaction in the mucin which is identical with that produced by albumen. Nitric acid wholly avoids this difficulty, and the boiling test avoids it almost as completely. When a urine containing both albumen and mucin is tested, by the *contact method*, adding the reagent by means of a pipette with a tapering point, with nitric acid, the albumen is thrown down just above the line of junction of the two fluids, while the mucin is brought into view toward the upper part of the column of urine, where it gradually forms a diffused haze, quite distinct from the opalescent zone at the line of junction. Sometimes the mucine haze is seen collected into a more or less distinct zone or ring, which hovers toward the middle or upper part of the column of urine. When this happens, a curious distinction may be observed between the two zones. The mucin zone is broken up into a diffused haze by a slight agitation, as by twirling the test tube between the fingers; but the albumen zone is remarkably steadfast, and resists unbroken a considerable amount of agitation.

When an opalescence in a specimen of urine is produced by the other tests mentioned, the observer can not (without further testing) tell what it means; but when an opalescence is produced by nitric acid at the time of junction of the two fluids, it means albumen, and nothing but albumen. For this reason nitric acid must be regarded as the albumen test best adapted for clinical work. If the observer waits fifteen to thirty minutes at the most, so as to allow time for a possible reaction to develop itself, nitric acid becomes a very sensitive test, and falls very slightly behind the most sensitive of the less reliable tests.

If it be desired to push the testing beyond the utmost sensitiveness of nitric acid, or to arrive at conclusions more rapidly, the heat test supplies the deficiency. When the heat test is performed with certain precautions, it transcends in delicacy all other albumen tests. The chief point to be attended to is the due acidulation of the urine; too much acid or two little acid equally vitiates the delicacy of the reaction. A test tube is charged with about three drachms (10 c. c.) of urine, and to this is added a single drop of acetic acid (B. P.). The upper half of the column is then heated to boiling. If albumen is present, even in minimal quantity, the upper boiled portion of the column will show opalescence, in contrast with the lower half, which remains unchanged. If the urine be alkaline, it should first be carefully neutralized by adding successive drops of acetic acid until the litmus paper shows a distinct but slight acidity, and then the final single drop of acid is added before boiling. Even if the urine possess its natural acidity, it is better to add a drop of acetic acid if your want to bring out the maximum sensitiveness of the boiling test. The mucin reaction is to a slight degree intensified by heat, but only interferes in the case of a urine containing much mucin with a trace of albumen. When the mucin haze is very pronounced and rapidly developed, the quantity of mucin present is sufficient to lower slightly the value of the boiling test. When this is the case, Dr. Roberts adds to the urine a fourth of its bulk of a saturated solution of common salt. This addition prevents the development of a mucin reaction on boiling, but does not interfere in the least with the albumen reaction.

A mixture of one volume of strong nitric acid with five volumes of a saturated solution of sulphate of magnesia makes an admirable albumen test. It forms a water-clear solution, which does not fume, nor stain nor burn the fingers or garments. Its specific gravity is 1–440, so that it sinks with rapidity through a column of urine in a test tube, and is suitable for testing by the contact method. It is distinctly more prompt and sensitive as a test than the pure acid, and its action in regard to albumen, mucin and peptone is similar. It acts less strongly than the pure acid on the coloring matter of the urine, and is not prone to cause disengagement of gas from destruction of uric acid. One of its recommendations is that it can be carried about in a corked bottle with considerable less risk of a catastrophe to skin and garment, than the strong acid.

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Early Symptoms of Cancer—Hutchinson.

As Emeritus Professor, Professor of Clinical Surgery Mr. Hutchinson is now delivering his second annual course of lectures at the London Hospital. This course was instituted last year on the occasion of Mr. Hutchinson's retirement from the acting surgical staff, when he was appointed consulting surgeon. It was considered desirable to retain him as a teacher in connection with the Medical College, so he was made Emeritus Professor, and undertook to deliver six lectures annually on some subject connected with surgery.

The lectures for the present year are perhaps a greater success than those given last summer, and being wholly delivered extempore appeal more directly to the minds of the auditors. It goes without saying that Mr. Hutchinson gives no mere summary of ordinary text-book opinions, but lays before his hearers, in plain and unmistakable terms, the results of his own clinical experience.

On Wednesday, July 2d, a good audience assembled to hear the lecture on "The Early Recognition of Cancer." The term "cancer" was used in its clinical sense and as including sarcoma, and not in its limited anatomical sense applying solely to carcinomatous growths. The importance of its early recognition was obvious. Mr. Hutchinson said that before the actual presence of cancer was what might be termed the pre-cancerous stage, and this was essentially a condition manifested by signs of local inflammation. An interesting case was narrated in support of this view. It was that of an old gentleman whom Mr. Hutchinson saw in consultation some years ago. One testicle had enlarged and was slowly increasing in size. The surgeons who saw the case agreed that it was probably not malignant, and recommended non-interference. It continued to grow, however, and was at last removed solely by request of the patient, who had all along been anxious about it lest it should be cancerous. It was examined microscopically and was found to be simply in a condition of inflammatory hyperplasia, and no signs whatever of malignancy were discoverable. The patient recovered from the operation, no further trouble manifested itself, and his medical attendants came to the conclusion that his testicle had been unnecessarily removed. Two years elapsed. The remaining testicle then began to enlarge in the same way in which the other had done. Remembering the result of the previous operation, the surgeons strongly advised the patient against operation. As before, it continued to enlarge until finally it reached a considerable size. At last even the surgeons began to be alarmed and the patient's anxiety was extreme. The testicle was at last removed at the urgent request of the patient. It was examined and proved to contain a well-marked sarcomatous growth. The inference was that the one first removed would, if allowed to remain, have also acquired a sarcomatous structure, and that the inflammatory hyperplasia found was a condition leading up to that of actual malignancy.

Eczema of the nipple preceding cancer was an illustration. Mr. Hutchinson remarked that cancer attacked parts that were functionally dead, as the breast in women late in life. Among animals it attacked the cat, the dog, and the horse, but not the sheep. The two former animals led a lazy life and were allowed to drag out their existence to old age. Sheep were usually killed before they were old enough to develop cancer.

The practical conclusion Mr. Hutchinson drew from his view was to treat as cancer all those cases where you suspect it—to adopt active measures at once and not wait for more decided symptoms until it might be too late.—*Med. Record.*

Alterations in the Action of Digitalis Produced by Febrile Temperature.

Drs. Lauder Brunton and Theodore Cash, at the close of an article on this subject, thus summarize the results of their experiments:

In the cat, and probably all animals in which the vagus centre exerts, as it does in man, a considerable restraining influence upon the pulse, rise of temperature causes at first a slight quickening of the pulse, which is probably due to stimulation of the cardiac ganglia.

This quickening does not increase in such constant proportion to the temperature as it does in rabbits, in which the vagus centre normally acts but slightly upon the heart.

When the temperature rises in the cat above a certain point, it weakens the action of the peripheral ends of the vagus on the heart, and also weakens the vagus centre in the medulla.

The action of heat upon those two parts of the nervous system appears to be of the same kind, but it differs in degrees, the centre appearing to be more affected than the periphery, so that its inhibitory action is completely abolished at a time when the peripheral ends still retain their functional activity to a great extent.

Though the inhibitory centre in the medulla is rendered inactive by the heat, so that it does not act on the heart, it is not completely paralyzed, and is still able to restrain the heart when it is called into action by a powerful stimulus, such as strong galvanization of one of its afferent nerves.

The action of digitalis upon it is that of a stimulant increasing its activity, and is very much like the effect which we should expect from gentle instead of strong stimulation from one of its afferent nerves.

The practical conclusion which results from our experiments is that a high temperature lessens the inhibitory power of the vagus centre in the medulla to such an extent that digitalis, and probably all drugs which act like digitalis on this centre, lose, to a great extent, their power to restrain the action of the heart and slow the pulse.

The administration of digitalis, or of drugs which act like it, to patients in a febrile condition is, therefore, likely to have much less effect on the pulse than at the normal temperature, and, if the temperature be very high, they may have no effect at all whilst this persists.

When the temperature begins to fall the pulse naturally becomes slower, and this slowness is increased if digitalis has been given at the height of the fever. It is, therefore, evident that digitalis and its congeners, if they are given at all when the temperature is high, should be given with great care, for otherwise the medical man may be induced, by the apparent inaction of the remedy, to push its administration too far during the fever, with the consequence of producing too great depression of the pulse during defervescence.—*Practitioner*, October, 1884.

The Dry Diet Treatment of Ulcer of the Stomach.

M. Debove, in *Le Progres Medical*, points out certain risks in the ordinary milk treatment of ulcer of the stomach: The ingestion of so much fluid, viz.: five to seven pints of milk in the twenty-four hours, into a stomach with atonic mucous membrane, is apt to produce almost fatal dilatation, and the stretching of the ulcer to provoke hæmorrhage and perforation. Indeed, all excessive dilatation of the stomach is dangerous, while contraction is favorable. M. Bouchard for a long time in this disease has given a dry diet, consisting of finely divided nutritious food—such as meat powders—with not more than three-quarters of a part of pure water during the twenty-four hours, and under this regimen he has seen the morbid dilatation of the stomach diminish or disappear. M. Debove's plan is as follows: The stomach is first carefully washed out, but the operation is to be instantly stopped if the returning liquid is tinged with blood. Then the patient is to take three meals daily, each consisting of meat powder twenty-five grammes, bicarb. of soda ten grammes, and, as the mixture is not very palatable, it is well to introduce it into the stomach by a siphon. To this dry food, which represents 300 grammes (about ten ounces) and 30 grammes (about one ounce) of sod. bicarb., per diem, one litre (nearly a quart) of milk is added, which is to be drunk in small quantities at a time. M. Debove's object is to annul the action of the gastric juice, and thus stop digestion and favor the healing of the ulcer.

The albuminoids are not converted into peptones in the stomach, and their alkaline reaction is very favorable to their digestion in the intestine. Perhaps, too, the soda is *directly* beneficial to the ulcer. Two severe cases of gastric ulcer, accompanied with very painful crises, by hæmorrhage, and by great emaciation, which had resisted all treatment, were quickly cured by the above treatment of Dr. Debove. —*Medical Chronicle.*

The Asiatic Cholera at Suspension Bridge, 1854, and Its Lessons—What We Know of Cholera.

Dr. Frank H. Hamilton read a paper on the above subject before the New York Academy of Medicine, November 6th.

The paper was the fulfillment of a promise made to the editor of the *Buffalo Medical Journal* in 1854, to write a paper, some time, on the Asiatic cholera as it prevailed at Suspension Bridge that year. After directing attention to the extreme fatality of the epidemic and its rapid spread among the workmen at Suspension Bridge, the author ascribed the great mortality to the elevated temperature, moisture of the ground, and alluvial, recently upturned soil. It was at the request of Dr. Rogers that Dr. Hamilton and two other physicians visited the patients during this epidemic. The following lessons which he had drawn from it were not presented as new, but as being entitled to special notice, in view of the fact that we were liable to have cholera imported into this city at any time. His opinions would be expressed chiefly upon the question of what is the present state of knowledge of the nature, the etiology, the mode of propagation, and the treatment of the Asiatic cholera.

First, Dr. Hamilton claimed that we had no positive knowledge of the existence of a specific cholera germ. In 1854, an Italian physician described a germ, to the presence of which he ascribed the development of cholera. Recently Koch had discovered the comma-bacillus, which he regarded as the true cholera germ, but after reviewing the facts for and against Koch's views, and the observations of others who had investigated the subject, the author stated that in view of the conflicting testimony with regard to the theory of Koch that the comma-bacillus was the cause of cholera, we were justified in the assertion that the claim had not been established.

Even if it were determined that the comma-bacillus was always present in cholera and never in other disease or in health, it would not be certain that the bacillus and cholera stood in the relation of cause and effect.

Again, the theory was also defective in that it had not been shown that the introduction of this germ into the animal system would produce cholera. The inoculations by Koch himself, practiced upon the lower animals, had been barren of results.

Again, if it were established that a microbe was the cause of cholera, the question would remain to be answered, which of the microbes hitherto described, or yet to be discovered, would prove the efficient agent. But it might still remain to be proven, should the experimentalists succeed in producing cholera by the introduction of a fluid containing a germ or germs into the system, whether the efficient agent were the fluid or the germ. It might be the fluid containing the microbe, which was the cause of cholera, this fluid having taken on properties which no microscope could detect. The author did not wish to be understood as underestimating the importance of microscopical studies; much useful information had been derived from the microscope in the study of disease; but so far as the cholera or other epidemic infectious diseases were concerned, microscopists had not taught us any important lessons, either with regard to their cause or their prevention. Germicides kill the microbes when attacked outside of the body, outside of their native soil, but within the body these remedies had no effect upon them. Consequently, patients continued to die of cholera after the discovery of microbes. Again, it had not been positively proven that the active agent in the production of the disease resided in the intestines; the symptoms would indicate that it might also exist in the blood.

The cholera germ, using this term in its general signification, might be conveyed from place to place by the clothing or any other textile fabric, by articles of food or water, or animate or inanimate substance. It might be conveyed a considerable distance by the air—how far it would be difficult to say; probably much would depend upon the force of the wind and other atmospheric conditions. He had reason to think it could not be thus conveyed farther than a mile or two. The theory of Koch, that the germ only found its way into the system through the mouth and stomach, was corollary to his theory of causation by the comma-bacillus, and that introduction of the poison through the mouth and into the stomach might be one of the means of propagation, could be admitted, but that it was the only means the history of epidemics showed not to be true.

It was not necessary to assume that because the intestinal secretions were changed, or the mucous membrane congested, that the virus was originally implanted in the intestinal canal. The blood and the renal secretion also underwent changes quite as marked as those which took place in the intestinal secretions.

Although the cholera virus were received into the human system, it need not necessarily give rise to cholera. It seemed probable that every person living in a cholera atmosphere received more or less of the virus into the system, but only a small proportion of these persons took sick and died. It was true of all the infectious diseases that the reception of the virus into the system did not necessarily produce that specific disease. It was also true, however, that a large proportion of those exposed to infectious diseases became infected, whereas only a small proportion of those exposed to cholera took the disease. A suitable soil was necessary. Cholera also differed from other infectious maladies in that one attack did not insure protection against another.

The conditions which protected against cholera were all those which went to prevent disturbance of the alimentary canal; also the avoidance of impure air, overcrowding, bad ventilation, decaying vegetable or animal matter, stagnant water, a warm and moist condition of the atmosphere. The most efficient agent for the propagation of the disease seemed to be the vapors rising from newly exposed soil, and decaying animal and vegetable matter, together with a warm and moist atmosphere. That filth was not the only efficient cause of the spread of the disease was shown by the fact that, during the epidemic at Buffalo, those persons living in dirty shanties on a sandy soil by the lake, escaped. But there were instances on record which went to show that a favorable condition of the soil and atmosphere alone would not check the spread of the disease, if other local conditions sufficiently favored its spread.

The profession had long sought for a specific against

Asiatic cholera, but there were really but very few specifics against any diseases, and none had yet been found for infectious diseases. But in the case of scarlet fever, etc,, the disease would run a certain course, and we could only seek to conduct the case to a favorable issue, whereas in cholera, if we took it in time we could often abort it. It was seldom, however, that a patient was saved to whom remedies were not administered until after the period of collapse had arrived. The remedies which had proven most successful were those which had long been known to be most successful in the treatment of diarrhœa, cholera morbus, and analogous affections. The most efficient means prior to the stage of collapse were opium and rest. Dr. Hamilton preferred opium in the solid form to morphine. The patient would be more likely to recover were he removed to a region not favoring the propagation of cholera, and usually it would be found that the disease would not be spread in his new domicile.

It was believed that cholera was brought to Suspension Bridge by some immigrants, but these people did not, so far as was known, suffer from the disease, either before their appearance at Suspension Bridge or after their departure, which went to prove that the rapid spread and fatality of the affection among the laborers there, was due to the condition of the soil and atmosphere. Again, in only a few instances, and in which the topographical conditions were favorable, was the cholera virus carried to and spread in neighboring localities.

Should cholera appear in this city, would it prove as fatal as it had done in Naples and the South of France? Dr. Hamilton answered in the negative, and for the reason that our climate is more favorable, our system of sewerage better, and we had efficient sanitary measures for the prevention of the spread of the disease. He referred to the success attending the efforts of the Sanitary Commission in stamping out cholera from Blackwell's Island in 1866, and spoke of the efficient work done by Dr. Yale, then one of the house-staff.

Dr. L. M. Yale said that his own experience with cholera had been confined to the epidemic on Blackwell's Island, referred to by the author of the paper. The report which he then made included also the experience of his associates upon the Island.

The epidemic broke out at the work-house. It had been preceded by a period of great heat and also the prevalence of diarrhæal troubles throughout the Island. It became necessary, therefore, to put diarrhœal remedies in various parts of the buildings, so that the patients could get them without the trouble always of searching for a physician.

The water-supply for a time was cut off, owing to some defect in the system of supply, and the bread had been sour for a short time.

The first case of Asiatic cholera occurred in the workhouse, although there had before been some cases of sporadic cholera in Charity Hospital. By the third day after the appearance of the first case, Dr. Yale had thirty-three cases —twenty-three of which proved fatal—and about twenty per cent. of the entire number of inmates were carried off before the disease was checked. The epidemic occurred principally on the lowest ground of the island. More women contracted the disease than men, and this might be accounted for by the fact that the men went out to work by day, and their wards were larger; the women remained in the wards, and the evacuations stood in a tub in a room where the inmates often remained for a considerable time in conversation with one another.

Again, the patients, being unwilling to go to the cholera hospital, tried to conceal the fact when they were seized with diarrhœa. These faulty conditions having been corrected, the cholera was rapidly and permanently stamped out.

Dr. Yale mentioned one circumstance which was not easily explainable; namely, that in one pavilion as many as thirty cases of cholera developed; whereas, in another pavilion, not thirty feet distant, not a single case occurred, although the conditions, so far as could be observed, were no better in the one than in the other.

Dr. Francis Delafield said he supposed all would admit that cholera belonged among the infectious diseases, or a class of diseases which did not develop unless the human body were infected by a specific poison. No matter how how bad the influences under which human beings lived with regard to soil, food, and hygiene in general, they might develop many other diseases, but they would not develop cholera unless there were added to these other favoring conditions the specific poison that belonged to the disease. Whether that specific poison had always to be imported into new regions to develop the cholera, or whether it were capable of originating in new regions, might be a subject of dispute, but experience seemed to show that its home was

India, and that other regions did not suffer until the poison was imported.

It being admitted that the disease was due to a specific poison, the question came up, What is that poison? Here we have had all varieties of theories, none of which have proven particularly satisfactory. The latest theory, to which attention has been called this evening, was that, in accordance with the prevalent doctrine of the times, most of the infectious diseases are due to the presence and growth of certain minute organisms. Fashions of this kind in science and in medicine sometimes prove good, and sometimes prove bad; and whether a given fashion will prove the one way or the other, could be known only after the lapse of some period of time. Dr. Hamilton had stated very fairly the evidence for and against this view of the causation of cholera. He had not stated, however, what Dr. Delafield considered particularly important to be borne in mind, namely, that there were only a very few men whose testimony was of any value in speaking of the presence or absence of germs in disease, and the reason was the very great difficulty attending the manipulations incident to the proper performance of the experiments.

Dr. Hamilton had alled attention to the very important point of the bearing which the condition of the soil and hygiene had upon the development of cholera, and this might be briefly expressed in this way: Whatever conditions of air, of temperature, of soil, of food, and of general hygiene would predispose to the development of diarrhœa would also predispose to the spread of cholera. In other words, wherever there were present a predisposition to diarrhœa and also the specific poison of cholera, we would have cholera developed in its worst form and to the widest extent. If all these predisposing conditions are absent, then the cholera germ may find its way to the place and not produce cholera at all.

This seemed to bring us to the means by which we can prevent the spread of cholera. In the present state of civilized society, quarantine measures seemed to prove useless if commercial relations were to be continued with other countries. What we should do was to seek to remove all the conditions which favor the development of the disease.

Dr. A. L. Loomis said that his personal experience with cholera had been limited to a few cases which he saw in this city in 1866–67, and he had therefore felt, when requested to discuss the paper, that he was largely in the position of one who was simply a student of the literature of the subject.

It seemed that, at the present time, we might justly divide the infectious diseases into three classes, according to the nature of their specific causes.

The specific cause in the one class produced its disease on being transmitted to the well person directly from one already infected. There was no evidence that the exanthematous diseases were transmitted in any other way than by direct or indirect exposure to the contagion.

The second class was that in which the disease was due to exposure to a poison developed outside of the human body, as decomposing organic matter.

The third class was that in which the poison developed within the living organism, or one affected with the disease, and was capable of reproducing the disease only when it had undergone certain changes after its discharge or removal from the infected person. To this class belonged typhoid fever and cholera, as Dr. Loomis believed from his study of the literature of the subject. The home of cholera seemed to be Bengal, and epidemics in other parts of the world could always be traced as having originated here. He did not believe that cholera was ever of spontaneous origin. Dr. Loomis then gave instances which went to show that in every epidemic of the disease its origin could be traced to spread of the contagion through soiled clothing, infected water, etc. The view that the poison was active only after it had undergone certain changes on being removed from the human organism, was favored by the fact that those making autopsies, those attending the patients, and microscopical observers of the fresh discharges, seldom contracted the disease. He was of the opinion that the poison entered the body only through the mucous membrane.—*Medical Record.*

Remote Puerperal Hæmorrhage.*

BY T. GAILLARD THOMAS, M.D.

SINCE I last attended a meeting of the society I have met with two cases which have suggested to my mind the considerations which form the basis for what I am about to say. I refer to a form of hæmorrhage which comes on three weeks or a month after labor, after the physician has ceased making his visits. Some years ago the late Dr. McClintock, of Dublin, wrote a paper on this subject, and called it "remote or delayed puerperal hæmorrhage," and Dr. Mundé has recently written an article bearing upon the same point, published in the "*American Journal of Obstetrics*." I have seen a good many of these cases, and the history of one which I will relate illustrates the experience that I have had with the most of them.

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* Remarks made before the New York Obstetrical Society.

In such a case the uterus may have contracted after labor, and everything gone on properly until the ninth day, when the physician has ceased to make his daily visits, but from that time the woman begins to lose blood steadily. If she makes an unusual effort, or if anything occurs in the family to cause considerable mental excitement, an exceedingly dangerous hæmorrhage may take place, which will require to be checked with the tampon. If sudden and profuse hæmorrhage does not occur, demanding the services of a physician immediately, a steady loss of blood in moderate amount may continue for a week or ten days, until the woman becomes very much exhausted.

The particular case of which I have had the history in mind in the foregoing remarks, was that of a lady to whom I was called in consultation by a German physician of considerable experience. Ten months before, the patient had called at my office, and had given a somewhat peculiar history. She had been married several years; her husband was a vigorous, healthy man in every respect, and she a remarkably handsome and well-formed woman, and yet no intercourse had ever occurred. On examination, it was found that she was suffering from a very aggravated form of vaginismus. Her husband had exhausted all his efforts, and her mental state had become such that she could not entertain the thought of sexual intercourse. An operation was performed; at the end of a month the patient left the hospital, and just nine months later she was delivered of a child. About the end of the seventh month of gestation the veins leading from each labium majus became greatly enlarged, and the parts presented the appearance of a mass of earthworms of the size of one's fist. I had seen the condition in so marked a degree but once or twice before.

On the ninth day after delivery hæmorrhage occurred, and she sent for her physician, who used all the ordinary means, including ergot, tannic acid, dilute sulphuric acid, etc., for stopping it, but without avail. The tampon, however, was not resorted to. About three weeks after her delivery the patient was seized with very profuse and violent hæmorrhage, which reduced her very much. It came on after she had got out of bed. When her physician reached her, the hæmorrhage had ceased. Each time it had begun with the passage of a blood-clot. On this occasion I was consulted, and I visited the patient three days later—the next time that hæmorrhage occurred. I took with me a nurse and instruments for dilating the uterine canal and for removing the remains of membranes. Her physician, however, felt very positive that none of the membranes had been left in the uterus, and stated that he had examined the placenta very carefully, and that there was no interruption of its continuity whatever. But I felt equally positive that some of the placenta yet remained in the uterus.

When the patient had been placed on the table and the ether-cone had been applied over her mouth, she suddenly sprang up in a state of wild excitement, and could not be induced to continue the inhalation of the ether; it had affected her so badly when she was operated upon for vaginismus. All means of persuasion were futile, and her friends desired that she should be compelled to take the anæsthetic. But I objected to compulsion, because, under such circumstances, after delivery, I have seen most violent and uncontrollable mania developed. In one instance the mania continued three weeks, during which time the patient was very violent, and had to be watched constantly by a nurse. It is true, the mania seemed to be of a hysterical nature; but, nevertheless, it was very violent. I think we can not be too careful as to doing that which is strongly opposed to the will of a puerperal woman. I would rather have run the risk of a violent hæmorrhage in this case, than have forced the patient to take the ether. She was spoken to kindly and put back into bed, and I assured her husband that she would send for me again within twenty-four hours, to have the operation done.

I was sent for the next day. The patient was then etherized, the uterine canal was dilated, the curette was passed, and three pieces of placenta were removed, each as large as the last phalanx of one's index finger. Very little hæmorrhage was excited by the operation, and I felt that in removing the pieces of placenta, I had removed the cause of the hæmorrhage.

The points I wish to make are these: The case was an interesting one: 1, with regard to the vaginismus; 2, with reference to the condition of the veins of the vulva; 3, with reference to the great danger of giving ether during a state of maniacal excitement; 4, with reference to what I believe to be the usual cause of delayed puerperal hæmorrhage, and the proper means for its cure.

With regard to the statement, so often made, that the placenta has been examined carefully and found entire, it usually amounts to nothing. In the first place, we know that the physician commonly looks at the after-birth hastily and in a careless manner. Besides, I believe that little pieces may be broken off and remain behind, which no man could recognize from an examination of the placenta, though he examined it with the utmost care. As in this case, so in all others of delayed puerperal hæmorrhage that I have met with, it has been due to retained placenta or membranes. Dr. McClintock mentioned a case in his practice which, I believe, proved fatal. I have met with some which very nearly proved fatal, and doubtless some of those present have encountered similar cases.—*N. Y. Med. Journal.*

Incontinence of Urine in Children.

Of medicines which diminish irritability, belladonna takes the first place; but it is important to be aware that this remedy, to be effectual, must be given in full doses. Children have a very remarkable tolerance for belladonna, and will often take it in surprising quantities before any of the physiological effects of the drug can be produced. In obstinate cases of enuresis the medicine should be pushed so as to produce dilatation of the pupils, with slight dryness of the throat. In children of four or five years of age, it is best to begin with twenty-five or thirty drops of the tincture of belladonna, given three times in the day, and to increase the dose by five drops every second or third day, of course watching the effect. Ergot is another remedy which is often very successful. For a child of the same age twenty drops of the fluid extract may be given several times in the day.

Bromide of potassium, benzoic acid (dose, five to ten grains) and benzoate of ammonia, digitalis, borax, cantharides, camphor, and chloral have all been recommended as specific in this complaint. Sometimes a combination of several drugs seems to be more effectual than one given alone. I have lately cured a little girl, aged four years, who had resisted all other treatment, with the following draught given three times in the day:—

℞ Tinct. Belladon,	ʒi.
Potas. Brom.,	gr. x.
Infus. Digitalis,	ʒii.
Aquam ad.,	℥ss.

M. Ft. haustus.

When the incontinence continues in the day as well as at night, strychnia should be combined with the sedative, so as to give tone to the feeble sphincter. In these cases, too, cauterization of the neck of the bladder, with a strong solution of the nitrate of silver (℈ i. ʒ.i. to the ounce of water), has been found successful.—*Eustace Smith's Work on Disease in Children.*

New York State Medical Association.

The paper read was by Dr. Alfred L. Carroll, of Richmond County, on the

DURATION OF CONTAGIOUSNESS AFTER ACUTE INFECTIOUS DISEASES.

The object of his remarks, the speaker said, was rather to direct his hearers' attention to the importance of studying this subject and recording their observations by the plan of collective investigation, than to present any certain data upon which they could yet base their conduct in any given case. The subject was one that had received but scant attention, and upon which there was but little unanimity of opinion, and yet a little consideration would show how important it was to be able to determine just when the isolation of a convalescent might with safety be removed. The author had addressed a communication to a number of well-known medical teachers and practitioners, in order to ascertain whether there were any consensus of opinion on this point, and he presented to his hearers a condensed summary of the answers obtained. As regards small-pox, nearly all of his correspondents were agreed that there was danger of contagion until all the crusts had been removed, although one stated his belief that there was little danger to be apprehended from the scabs on the palms and soles, provided there were none remaining on the other parts of the body. In respect to the other contagious diseases there was less accord. In typhoid fever and in cholera it was the general opinion that the contagion resided in the discharges; and that the danger ceased when convalescence had been established. Many of the correspondents, with whom the author also agreed, regarded filth-poison as of prime importance in diphtheria, and doubted the existence of a direct personal contagiousness. Yet one writer maintained that there was danger as long as any trace of inflammation remained. In measles one would release the patient from quarantine as soon as the fever and eruption had disappeared, while others would prolong the period of isolation to from one to three weeks after desquamation had ceased. The greatest diversity of opinion existed in regard to scarlatina. Many released the patients as soon as desquamation had ceased and a bath had been given; others confined them for a period varying from six to eight weeks. The author had found in some cases that no contagion occurred even when the children mingled with their playmates before the period of desquamation was over. He thought that this fact was to be explained by assuming that the last scales thrown off were not infectious, but were the expression of a secondary dermatitis, the scales first appearing being the ones that contained the poison.

Dr. John S. Jamison, of Steuben County, then read a communication on

CHRONIC INTESTINAL CATARRH.

The most frequent cause of this condition is an improper diet, as regards either quantity or quality. Another potent factor in the production of the disease is found in meteorological conditions—a prolonged high temperature or a change to cold, damp weather. It may arise from impaired stomach digestion, from disease of the liver or pancreas, or from any condition causing obstruction to the portal circulation. The malarial poison is another occasional etiological factor. An acute diarrhœa is often neglected and may then pass, after successive attacks, into a chronic intestinal catarrh. The symptoms of this condition are not always sharply defined, for diarrhœa is not necessarily present, and there may be no severe pain. There is often a dull sense of pressure and abdominal fullness. The author had frequently observed a displacement downward of the transverse colon, and he regarded it as a sign of considerable value in the diagnosis of this disease. Sometimes mucus, in coherent masses or even in the shape of intestinal casts, is passed at stool. In the treatment the author regarded pepsine and pancreatine as of great utility.

A paper by Dr. Frederick Hyde, of Cortland County, was read by title only, the author being absent.

Dr. Edward R. Squibb, of Kings County, then followed with a paper entitled:

THE MODERN PROGRESS OF MATERIA MEDICA.

The author did not refer to the introduction of new remedies, now becoming so fashionable, but rather wished to consider the elements of progress in the treatment of disease among that large class of intelligent and practical physicians who read much but write little, but who are none the less good, sound and sensible practitioners. The progress of materia medica among these men can not be learned from their writings, since they do not write, but is to be judged of by knowing the drugs which they order and use. Medical men now realize the fact that their success in their profession depends upon their utility to the public; they must direct their energies to the prevention of disease, to its management when it occurs, and to the reparation of its ravages. The physician does not now rest content with a diagnosis, but seeks as far as he may to conduct his case to a successful ending. We hear less and less of expectancy in the treatment of disease; indeed the danger now is of rushing into the opposite extreme, by trying all the new remedies that are spoken of. The author pictured the armamentarium of a physician in one of the new Western towns; this consists of a thermometer, urinometer, litmus paper, often a plain serviceable microscope, and sometimes even a sphygmograph. He has a good selection of some twenty or thirty of the standard remedial agents, but few non-officinal drugs are found in stock. More pharmacopœias are sold now than formerly, and physicians are learning to make their own tests and to judge for themselves of the purity of the drugs supplied to them. Few physicians nowadays undertake "cures," but they endeavor to conduct the disease to a successful issue. Few believe that drugs cure diseases, and hence they seek to manage their cases according to the indications as they arise. Another advance that has been made in the last few years is, that practitioners are learning to throw off the trammels of arbitrary doses. They now look only for *effects* from remedial agents, and they accordingly push the drug until they obtain these effects. The use of indicating doses for drugs, the writer thought, will in the future be only to show where we are to start in their administration, the stopping-point being different in different cases, and to be determined only by observation of the effects produced. Physicians use fewer drugs than formerly, but those that they do use are more effectual. The combination of many agents in one prescription is less frequently resorted to. The form of the agent now used is also worthy of note. The dilute and uncertain preparations are being called for with less and less frequency, and the fluid extracts, as the most concentrated and most reliable forms, are growing daily in favor. There is, however, a tendency to the use of alkaloids of the so-called active principles of drugs, which the author did not approve. The active principles so-called, he maintained, are not the same as the drug, for they are often produced by some chemical change occurring in the course of their manufacture. They are furthermore not always permanent, but are liable to split up and form new chemical compounds with totally different effects. Thus, the author concluded, although in the main the progress has been in the right direction, yet not all the changes of late have been improvements.

Dr. W. H. Robb, of Montgomery County, read a paper on the

MANAGEMENT OF CRIMINAL ABORTION.

Control hemorrhage as soon as possible with ergot and digitalis given hypodermically and in full doses. Stimulants should be given by the same method until the patient has rallied. The ergot should be given as soon as the patient is seen, and should be continued until the uterus has contracted and the ovum has been entirely removed. Locally, various astringents, as ice, tincture of iodine, hot carbolized solutions, and other remedies, may be used. When these means fail to control the hemorrhage, the tampon should be introduced. The tampon should be removed every six hours, and its removal should be followed by a hot carbolized injection. The injections are best given by introducing a soft rubber tube into the uterus. The Fountain syringe is the best, as by its use no force can be exerted and no air can enter the organ. The womb should be emptied as soon as possible, so that all danger of decomposition may be prevented. The safest and most efficient instrument in removing the ovum is the finger. If the cervix is not dilated, tents should be used. The removal of the ovum should be followed by a hot douche.

Dr. Vandewaker, of Syracuse, said the danger in abortion before the third month is due to loss of blood and poisoning from decomposition. He had never seen a good result from the use of ergot in criminal abortion. The machinery of the uterus is not fully developed before the third month, hence the uterus does not contract firmly, but spasmodically. If the physician is called late at night, and no other means are at hand, the tampon may be used; but it should never be used unless absolutely necessary. The quickest way to stop the hemorrhage is to relieve the uterus of its contents.

Dr. Moses C. White, of New Haven, said the action of ergot in abortion at the third month is not to expel the contents, but to contract the uterus and thus prevent its expulsion. He uses ergot, not to bring on but to prevent abortion.

Dr. Sabine, of West Point, explained the dangers of using the tampon, and gave the history of a case of rupture of the fundus of the uterus, followed by the death of the patient, due to its use. Tampons are very dangerous unless used with great caution.—*Medical Record.*

Infantile Atrophy.

Infantile atrophy is one of the most common causes of death in young infants. It is produced by simple starvation—the nourishment may be administered, and consumed with avidity, but it is not assimilated—the babe continues to waste, and finally dies. Mothers do not, as a rule, understand the cause of marasmus, and, consequently, endeavor to overcome it with greater varieties and quantities of food. The doctor, when called in, too often relies on medicine to check the prominent symptoms, while neglecting correct directions concerning diet.

It is well to remember that this is a curable complaint; but the cure must of necessity result chiefly from proper feeding. Among the artificially fed, one of the greatest difficulties is the digestion of the heavy curd of cow's milk. Eustace Smith, in his recent work, recommends a mixture of barley water with the milk. He thinks this acts beneficially by separating the particles of curd. Isinglass or baked flour may be used for the same purpose. It is found very difficult in some cases, by any of these methods, to enable the stomach to digest this caseine.

In order to overcome the difficulty, Prof. Pfeiffer has advised us to peptonize the milk, to which reference is made in an article which appeared lately in the *N. Y. Med. Record*. By this process the caseine is physiologically changed into peptones, which are readily soluble; *i. e.*, it is wholly or partially digested, and is no longer a source of irritation to the feeble stomach. The milk is peptonized by means of an extract of pancreas. Completely peptonized milk has a bitter taste, which is somewhat objectionable, especially to some patients. It is better, on this account, not to finish the process, but leave it partially peptonized, in which condition it is quite palatable. This leaves some work for the digestive apparatus to perform, which is in itself an advantage, because it is not well to monopolize all its functions. Our rule should be, in fact, simply to assist the natural process of digestion so far as required, and no more.

Dr. J. Lewis Smith, of New York, has used for some time, at the Foundling Hospital of that city, an extract of pancreas, prepared by Fairchild Bros. & Foster, with very satisfactory results.

Tha article in the *N. Y. Record*, before alluded to, concludes with the following remarks: Cow's milk is the best substitute for human milk. The former is apt to disagree with the infant on account of definite chemical, physical, and physiological differences, that have been accurately ascertained, and have now been largely overcome. Let ordinary cow's milk be diluted with water, that has recently been boiled to destroy all germs, until its percentage of albuminoids has been reduced to the proper amount. Next, add to it enough cream to make up the fat, and some sugar of milk. Then peptonize it with reliable extract of pancreas, for the alteration of the caseine, and there is produced the best physiological imitation of mother's milk. The peculiar vital or maternal properties of human milk must always elude analysis, but to this limit we have well-nigh reached. Science, as always, stops before the mystery of vitality.

Microscopy.

The Microscopic Investigation of the Brain and Spinal Cord.

BY W. T. COUNCILMAN, M. D.,
Associate in Pathology, Johns Hopkins University.

THE means which have been generally used up to the last year or two for the microscopic investigation of the central nervous system, have been very imperfect. Carmine has been generally used as a staining reagent, and it stains most of the nerve fibres very well. It is also unequaled for staining the large ganglion cells in the gray matter, but the fine nerve fibres in this are not brought out, for they are embedded in a substance which stains just as do the axis cylinders. The same holds good also for hæmatoxylin and the most of the aniline colors. Other methods, as the gold chloride staining, and that recommended by Exner of osmic acid, after previous treatment with ammonia, give much better results; but the necessary manipulations require great care, and the results are very uncertain. The gold method can only be used on perfectly fresh material, and hence is practically out of the question in human tissues; preparations by both this and osmic acid have the further disadvantage of changing in a short time.

For any investigation of the nervous system, whatever be the method used, it is necessary to obtain the specimens at a much earlier period after death than autopsies are usually made. No tissue in the body suffers so much from post-mortem change as the nervous tissues, and although, in some cases, tolerable results may be obtained when twelve or fourteen hours have elapsed between the death and the autopsy, it is in all cases better to obtain the material after only four or six hours have elapsed.

The cord should be taken from the body entire, still enclosed in the dura mater, and all pulling and hauling on the cord be avoided. The dura can be grasped with a pair of forceps, and the small amount of traction necessary in raising the cord to cut the spinal nerves be made upon this. After the cord is removed the dura must be split anteriorly, and with a sharp knife incisions must be made through the cord at intervals of one inch. The whole cord should then be suspended in Müller's fluid in a tall vessel. The pieces of brain to be examined should not be more than 1 to 1½ inches square, should be cut with a sharp knife, and handled as little as possible. The medulla and pons may be left entire. The pieces of brain or medulla should be laid on absorbent cotton in a vessel previously filled with Müller's fluid. Under ordinary circumstances it takes for such tissues to acquire the proper degree of consistency more than two months, but the process of hardening can be shortened in various ways. We can either add to the Müller's fluid a small quantity of copper sulphate, or substitute for it the fluid of Erlicke :—

Potassic bichromate	2.05
Copper sulphate	.5
Distilled water	100.0

The addition of the copper gives a slight greenish tint to the tissues, but does not interfere with the staining. In this fluid tissues become sufficiently hard in seven or eight days. Much better results are obtained when Müller's fluid alone is used, and is kept while the hardening is going on at a temperature of 42°—45° C. By this means in five or six days a whole human medulla is hard enough to cut. The fluid should be changed daily.

After becoming sufficiently hard, the tissue may be embedded in celloidine, or simply cut in thick slices, and these gummed on cork. After being gummed on cork they are left for a few hours (5 to 10) in absolute alcohol. If the hardening has been perfect, it is possible to cut with a sharp knife on the sliding microtome sections of $\frac{1}{50}$ of millimetre without any process of embedding. After the sections have been cut they are placed in water which contains 1 or 2 per cent. of alcohol. This small addition of alcohol is necessary to prevent the sections from breaking up. From the water the sections are placed in a dish filled with saturated aqueous solution of acid fuchsin. This is altogether different from the ordinary fushsin which is used in staining tubercle bacilli, and its staining substance is an acid instead of a base, as in the common fushin. The sections remain in the staining solution for ten to twenty hours at ordinary temperatures, or for two hours at a temperature of 40°—45° C. After being slightly washed in water they are placed in a solution of caustic potash in absolute alcohol, 1–1000. This is best made by keeping on hand a standard one per cent. solution, and diluting this ten times before using. The sections remain in this solution until a differentiation of the tissue is seen, the white matter remaining an intense red and the grey gradually becoming paler. The whole success of the staining depends on the washing out, and the sections must be carefully watched until the proper degree of differentiation is seen. Then the sections are placed in distilled water and after remaining in this a few minutes put through alcohol and mounted in balsam.

Xylol will be found to answer better to extract the alcohol than any other agent. The nerve fibres, both in the white and grey matter, will be stained a brilliant red and the nerve cells and nuclei a bluish red. If it be desired to make the staining of the nerve cells more prominent, the sections may be afterward stained in hæmatoxylin. This method was discovered by Weigert (*Central-Blatt F. D. Med. Wissensch.*, 1882, p. 751), and he has lately (*Fortschritt D. Med.*, Mai, 1884) published another method, which is not only more simple, but gives results which are in the main better. It is proper to say here that Prof. Weigert has done, perhaps, as much as any man living to give us methods of working which have been of incalculable benefit, not only in pure histology, but in pathology.

After the tissues have been hardened in Müller's fluid in the manner just described, the sections are placed in water, and from this into the following solution of hæmatoxylin:

Hæmatoxylin	0.75
Absolute alcohol	10.00
Boiling distilled water	100.00

They should remain in this (filtered) solution at a temperature of 45° C. for one hour; they will then be an intense, dark-blue color, and uniformly stained. No differentiation of the grey matter from the white can be observed. From the hæmatoxylin solution they come into the following:

Borax	2.00
Potassium ferricyanide	5.00
Water	100.00

This has the same effect in bringing about a differentiation that the potash solution had on the fuchsin preparations, the white matter remaining blue and the grey becoming paler. The secret of successful staining in both methods lies in the decolorization. A little experience will, however, soon tell one when the desired point is reached. From the cyanide solution the sections are washed out in water and mounted in balsam in the ordinary manner. The nerve fibres in both the white and grey matter will have a dark purple color, the nerve cells a bronze tint, and the connective tissue a brilliant saffron tone.

Any one using these methods for the first time will be struck with the richness of the net-work of nerve fibres in the grey matter of the cord. What was formerly spoken of as gelatinous substance or neurolgia will be found to be mostly nerve fibres. As said, they are not visible under ordinary circumstances, because the intermediate substance stains as intensely as the axis cylinders. At first sight it will appear that the axis cylinders are stained, but closer inspection with high powers will show that these are really unstained, and the white substance of Schwann has taken on the color. In the middle of the bright red or purple spots which represent the cross sections of nerve fibres the unstained axis cylinder can be seen. It is in all respects just the opposite to the ordinary staining of carmine and hæmatoxylin.

These methods are invaluable in the pathology of the cord in tracing degenerated nerve tracts. The degenerated fibres are unstained in the fushsin and stained yellow with the hæmatoxylin, and they offer a striking contrast to the other parts of the cord. However, for staining the cord or brain to show lesions other than those of the nerve fibres, I have found the best results can be obtained with picro-carmine. This can either be made in the manner recommended by Weigert (*Virch. Arch.* B'd. 84), or after the formula of Ranvier. It is always a matter of great difficulty to procure a picro-carmine which stains well, and its making seems to depend quite as much on chance as skill. It should always be kept a long time after being made before it is used. I have frequently found that an old forgotten solution covered with mold would stain in the most brilliant manner, while a fresh solution, carefully made, would give but imperfect results. The sections should remain in the carmine 24 hours, and then be washed out in water which contains a slight percentage of picric acid. Whatever be the method used, it is essential to have fresh tissue to begin with.—*American Monthly Microscopical Journal.*

Injecting a Cat.

Prof. Stowell, in his work upon histology, which we have noticed in another place, gives the following directions for injecting a cat for microscopical purposes:

"Cover with a large funnel, and place a small sponge, saturated with chloroform, in the chamber with the animal. When the cat has become thoroughly under the influence of the anesthetic, remove to a board, place on the back, and secure the extremities firmly with strong twine fastened to nails, previously driven in the board. Fasten the head firmly by a regular gag or by twine. Do not let the animal die yet; keep administering the chloroform on a sponge held over the mouth as occasion requires. The usual method is to remove the sternum by cutting the intercostal cartilages on either side, and inject from the heart. To do this, cut through the pericardium and make an incision through each of the ventricles of the heart. Secure the pipe in the left ventricle and proceed. Toward the last, close the opening in the right ventricle. Use Seiler's carmine gelatine."

We presume that the object in keeping carefully the cat alive is for the purpose of having the colored injecting fluid carried by the natural contractions of the ventricles into the most distant capillary vessels, where status occurring, on death taking place, it will remain.

"A much neater way," he says, "To perform the operation is to inject from the carotid artery down toward the heart. It can be so neatly performed that scarcely any blood is lost, except that collected in the beaker. First cut down and expose the large artery and vein of the neck. Either dissect the vein out for a little distance and then cut it, and hold the cut extremity over a beaker, or better, introduce into the vein a small glass tube. Bleeding will freely occur through it. If a clot stops the flow, remove the tube and wash it out, or introduce a wire and break it up. Then secure the filled nozzle in the carotid artery. A small portion of the vessel is secured between the two clamps—flattened, bent wire—and a longitudinal slit made through its walls. After the pipe is well secured, a small quantity of the carmine mass is slowly introduced. The heat of the heart itself will push the mixture on until this first small quantity is seen to color the gums and eyelids. Proceed as directed, until the operation is completed, until considerable force is necessary to empty the syringe. Toward the latter part of the operation, it may be desirable to open the abdominal cavity, in order that the organs may protrude, and become completely filled with the injecting mass. When the gelatine has set, the tissues may be removed, and hardened after the regular methods."

Gleanings.

Gun-shot Wounds of the Intestines.—Dr. Parkes, of Rush Medical College, Chicago, has been experimenting on gun-shot wounds of the intestine in dogs, and gives the result in a paper read before the Am. Med. Association. The experiments show in the most unmistakable manner the utility and value of abdominal section and stitching of the bowel. He recommends a modification of the *Lumbert* suture, as the most satisfactory, but states in conclusion that it makes no difference what kind of suture is used, long as the principle of securing the application of two broad surfaces of peritoneum in contact with each other is carried out. He used both silk and catgut. The sutures were introduced about the third of an inch from the divided edges, made to include the peritoneal and muscular coats *only*, and brought out just free of the edge on one side, and similarly inserted on the other. The lacerated part was first excised and bleeding arrested.

Affinity of Chloroform for Strychnia.—The following prescription was prepared for a lady:—℞—Liquor strychniæ, ʒij; spirits chloroformi, ʒiii; aq. ad., ℥iss. M—Sig., ʒi three times a day. On taking the final dose the patient was sized with spasmodic contractions of the feet and legs. These symptoms soon passed off, but caused much alarm at the time. On examining the bottle which had contained the medicine, a drop or two of water was seen remaining, and beneath this a globule of chloroform, which proved to be highly charged with strychnia, the insoluble chloroform having abstracted the strychnia from its solution. This teaches the propriety of giving strychnia when combined with spts. chloroform, in a state of greater dilution than that ordered above.

Incomes of English Physicians.—Of English doctors, Radcliffe made over $35,000 a year in the height of his fame; Mead, $25,000; Baillie, $45,000; Sir H. Halford, $55,000 and Sir B. Brodie, $85,000 in the year but one before his retirement, the largest income known. Radcliffe once received $8,000 as a special fee for visiting Lord Albermarle at Namur; Granville $5,000 and his traveling expenses for a visit to St. Petersburg; and recently Sir W. Gull $5,000 each for two visits to Pau and $7,500 for traveling to Perthshire and remaining a week with a patient. But the fee of fees was that received by Dr. Dinesdale in 1768 for inoculating the Empress Catherine and her son at St. Petersburg —viz.: $60,000 paid down, a pension of $2,500 for life and the dignity of a baron.—*Gaillard's.*

The expenditures for various purposes per annum in the United States are as follows:

Drink,	$900,000,000
Missions, Home and Foreign,	5,500,000
Bread,	505,000,000
Meat,	303,000,000
Iron and steel,	290,000,000
Woolen goods,	237,000,000
Sawed lumber,	233,000,000
Cotton goods,	237,000,000
Boots and shoes,	196,000,000
Sugar and molasses,	155,000,000
Educational purposes,	85,000,000

It will be seen by the above table that the money spent on drink (liquor) is about equal to the amount spent for any three of the other articles.—*Ex.*

Book Notices.

THE STUDENTS' MANUAL OF HISTOLOGY.—For the Use of Students, Practitioners and Microscopists. Third Edition. Entirely Rewritten, Greatly Enlarged and Newly Illustrated. By Charles H. Stowell, M. D., F. R. M. S., Prof. of Histology and Microscopy, and in Charge of the Histological Laboratory of the University of Michigan. Illustrated by 178 Engravings. 8vo. Pp. 368. Ann Arbor, Mich.: Chas. H. Stowell. Price, $3.50.

Every person purchasing a microscope with the intention of studying histology, should supply himself with a copy of this work—and, of course, every physician, with a microscope, expects to study the blood, pus, spermatozoa, and cell structures generally; and also to familiarize himself with the various tissues, as sections of bone, cartilage, muscular fibre, nerve fibres and cells, structure of the various mucous surfaces, etc.

The first chapters are devoted to a description of the microscope and the accessories belonging to it, giving very full and plain instructions how to manipulate it, so much so that, with the careful study of them, the intelligent student will soon be able to manage the instrument without an instructor. After the use of the microscope has been taught, then the methods for preparing objects to be examined are described. One soon finds out, after procuring a microscope, if he did not know it before, that but very few objects can be examined until after they have been carefully prepared for the purpose. This fact causes a good many persons, after they have procured, may be, a costly instrument, to put it aside in some closet, where it remains sometimes for years, without being used. The student, on the contrary, who is anxious to search out the hidden things of nature, is stimulated to using greater industry, and he soon comes to love the work which seemed at first only a hindrance to investigation. How to make thin sections of tissues, inject vessels with coloring material, make stainings, mount objects, etc., is fully set forth, so that there need be no trouble in their execution. Prof. Stowell is an experienced teacher of the microscope, and fully understands the needs of students. With this work before him, the young histologist, with his fifty dollar microscope, can begin with the corpuscles and epithelial cells of the saliva, blood, milk and pus cells, advancing to the connective tissue, structure of the bone, teeth and muscle, and then taking up the blood-vessels, respiratory passages, air cells of the lungs, salivary and other glands, structure of the liver, with its acini, malpighian bodies of the kidneys, etc., be able to proceed from organ to organ in the minute study of all the structures of the human body, and demonstrate for himself their histology, as set forth in works upon the subject.

The work is the best work ever issued from the press for the use of those just beginning, with the microscope, the study of histology. The third edition has been entirely rewritten, (the first was issued in 1882); a large amount of new matter has been added. Five new chapters have been added; poor illustrations have been replaced by better ones.

Opera Minora.—A Collection of Essays, Articles, Lectures and Addresses from 1866 to 1882, inclusive. By Edward C. Seguin, M. D., Clinical Professor of Diseases of the Mind and Nervous System, in the College of Physicians and Surgeons, New York, etc. 8vo. Pp. 686. New York: G. P. Putnam's Sons. Cincinnati: R. Clarke & Co. Price, $5.00

Our readers are aware of the reputation of Dr. Seguin as a neurologist and alienist. He has devoted many years to the study of diseases of the nervous system, and has had a large experience in their treatment. Being a logical thinker and an accurate observer, whatever emanates from his pen can be relied upon as of value.

The title page describes very well the character of the work—being a collection of essays, published articles, lectures and addresses upon different subjects pertaining to affections of the nervous system, of which the author has made a specialty in practice. Although these papers, as we may term them, are not arranged so as to form a regular treatise upon diseases of the nervous system, yet an inspection of the book exhibits the exhaustive treatment of so many of them, that the work seems to fall but little short of a treatise. Some attention to method in arrangement, with the addition of matter in the way of connecting the parts together, and adding a chapter or so upon the general physiology and pathology of the brain and spinal cord, is about all that would have been necessary.

The reader will find very interesting and instructive essays upon such subjects as the Use of the Thermometer in Clinical Medicine; The Subcutaneous Use of Sulph. Quinine in Cases of Malarial Neuralgia; A Statement of the Aphasia Question, with a Report of Fifty Cases; the Same with Right Hemiplegia; with Left Hemiplegia; with Double Hemiplegia; without Hemiplegia; Autopsy of a Case of Mania; Contributions to Pathological Anatomy of the Nervous System; Case of General Paresis of the Insane; Infantile Spinal Paralysis; A Clinical Contribution to the Study of Post-Paralytic Chorea; Syphilitic and Simple Pachymeningitis; Contribution to the Study of Localized Cerebral Lesions; The Use and Abuse of Bromides; Bulbar Paralysis;

Localized Basal Meningitis in Children; Clinical Lecture on Syphilitic Cerebral Lesions; Eight Lectures on the Localization of Spinal and Cerebral Diseases; Case of Mysophobia; Treatment of Trigeminal Neuralgia; Hyoscyamia as a Depresso-Motor; Early Recognition of Epilepsy, etc. These are but a few of the subjects treated in the volume. But, while the papers are generally devoted to affections of the nervous system, there are a few devoted to other medical subjects, as a Case of Trichinosis; The Use of the Actual Cautery in Medicine; Desquamation of the Kidneys during the Administration of Mercury and Iodide of Potassium, etc.

The work will be regarded as a valuable contribution to medical literature.

THE SCIENCE AND ART OF SURGERY.—A Treatise on Surgical Injuries, Diseases and Operations. By John Eric Erichsen, F. R. S., LL.D., F. R. C. S., Surgeon Extraordinary to Her Majesty the Queen; Ex-President of the Royal College of Surgeons of England and of the Royal Medical and Chirurgical Society; Emeritus Professor of Surgery in the University College, etc. Eighth Edition. Revised and Edited by Marcus Beck, M.D., and M. B. Land, F. R. C. S., Surgeon to University College Hospital, and Professor of Clinical Surgery in the University College, London. With 984 Engravings on Wood. Volume I. Large 8vo. Pp. 1124. Philadelphia: Henry C. Lea's Sons & Co. Cincinnati: R. Clarke & Co. Price, $5.50.

Each one of the various editions of this magnificent work upon surgery has been noticed by us at the time of issue. It, therefore, having been pretty well described in our pages, at different times, it mostly devolves upon us now to inform our readers in regard to the revision, which the author has made in preparing the eighth edition, in order to bring it abreast of the knowledge of modern surgery in its science as well as in its art.

It is almost needless to say that Erichsen's surgery, since its first publication, more than thirty years ago, has held a position second to no other work upon surgery as a textbook or a work for reference for physicians. Both in England and in this country it has been equally in favor, and has been more in demand than any other work, especially with students. When it occupied but one volume, its convenient size seemed to especially adapt it as a text-book and recommend it to students, so that when it became enlarged and it was necessary to make two volumes of it, it was thought by some that it would not be in so great demand with students; but so far as our observations extend, its many merits continue to make it the leading text-work upon surgery. Without prolixity and without tediousness in discussing unsettled questions, but plainly, and in an interesting manner, explaining the principles of surgery as a science, and lucidly describing all that pertains to it as an art, it will maintain for a long time to come the position it has so long held among the students of our medical colleges and with physicians.

In preparing this edition, the work has undergone a very thorough revision. "Much that was antiquated has been eliminated from its pages—more that is new in pathology as well as in practice has been noticed." But to mention all that has been done to improve the work would occupy too much space. Suffice it to say that about one hundred and fifty new figures have been added, drawn from nature, and that it has been the endeavor in treating injuries and surgical diseases to give as full and clear a description of symptoms, pathology, diagnosis and treatment, as the importance of each demands, and the present state of surgical knowledge permits.

The second volume will be issued soon. So large a volume as the first volume, bound handsomely in sheep, printed on such excellent paper, and so finely illustrated, is remarkably cheap at its price.

A TEXT-BOOK OF PRACTICAL MEDICINE: Designed for the use of Students and Practitioners of Medicine. By Alfred L. Loomis, M. D., LL.D., Professor of Pathology and Practical Medicine in the Medical Department of the University of the City of New York; Visiting Physician to Bellevue Hospital, etc. With 211 illustrations. 8vo. pp. 1102. New York: Wm. Wood & Co. Cincinnati: H. Stacy.

The works upon the Practice of Medicine are numerous; so much so, in fact, as to suggest the opinion that there is no want for an addition to the number. There is no doubt that, so far as numbers are concerned, there are enough of them; but if still another can be prepared, possessing valuable features peculiar to itself, there is room for it, and its production will tend to encourage progress. An examination of the work before us shows that it has merits of its own, and will tend to facilitate the study of the practice of medicine, giving students a clearer understanding of the pathology of many diseases.

Prof. Loomis is one of the most distinguished physicians of this country, and has been a teacher of medicine for many years. His experience as a practitioner has been very great, and his knowledge of the wants of students is not second to any teacher or writer. Under such circumstances, in presenting to the profession and to students of medicine a new work upon the practice of medicine, he has been able to bring to his assistance most thorough qualifications.

An excellent feature of the work, which will be highly valued by both physicians and students, are the microscopic illustrations. There are not a few of these, which will be of great assistance in obtaining correct notions of pathological changes. The most of these, we are informed, were prepared especially for this work from sections made in the laboratory. Other illustrations, which appear, also are original. The author states that his experience as a teacher has led him to employ quite extensively plates illustrating the morbid changes and objective symptoms of disease.

The present work, both in text and illustration, is practically a revision and an elaboration of lectures given during the past eighteen years in the medical department of the University of the City of New York. That it will take a position in the front ranks of works of the kind, we have no doubt. It gives a lucid, satisfactory description of the various diseases of which it treats, setting forth the treatment in each instance which the most advanced knowledge of the present time indorses. We would be pleased to exhibit the classification adopted, but our space will not permit. We will only state that it is in accordance with our present knowledge of etiology.

THE ELEMENTS OF PHYSIOLOGICAL PHYSICS: An Outline of the Elementary Facts, Principles and Methods of Physics, and Their Application in Physiology. By J. McGregor-Robertson, M. A., M. B., C. M., Demonstrator of Physiology, and Assistant to the Professor of Physiology in the University of Glasgow. Illustrated with 219 engravings in wood. 16mo. pp. 528. Philadelphia: Henry C. Lea's Son & Co. Cincinnati: R. Clarke & Co. Price, $2.00.

This volume belongs to the series of manuals for students of medicine which Messrs. Lea's Son & Co. are publishing. We have already described a number of them.

As we have intimated in regard to a number of others of the series, it is a jewel of a medical work for medical students. Of a size permitting it to be carried in the coat pocket, it can always be had convenient for reference or study. Although comparatively small in size, yet it is by no means meager in its information, but gives a very satisfactory account of all the subjects usually treated in a text-book of its kind.

This series of manuals must certainly meet with great favor with medical students, so well suited are they to their wants.

A Practical Treatise on Fractures and Dislocations. By Frank Hastings Hamilton, A. B., A. M., M. D., LL.D., late Professor of Surgery in Bellevue Hospital Medical College and Surgeon to Bellevue Hospital, New York; Con. Surgeon to Hospital for Ruptured and Cripples; Author of a Treatise on Surgery, etc., Seventh American Edition, Revised and Improved. Illustrated with 379 wood cuts. 8vo. pp. 1001. Philadelphia: Henry C. Lea's Son & Co. Cincinnati: R. Clarke & Co.

The first edition of this work was published in 1859, when, as we learn, there was not another single complete treatise on fractures and dislocations in the English language. In French there were the volumes of Desault and Boyer, but they could not be regarded as embracing the whole field. But soon after the great work of Malgaigne appeared, which was translated and given to the profession of this country by Dr. Packard, of Philadelphia.

The work of Dr. Hamilton is the standard authority in this country upon fractures and dislocations. The views expressed in it on these subjects are authoritative and limit all controversy; for it represents not only the learning and extensive experience of the author, but of all eminent men of the profession—both the great surgeons of the past,.so far as their efforts demonstrated scientific principles, which have become truths which will always be recognized, and the distinguished surgeons of the present time, who have continued the progress of chirurgical knowledge and are continually developing new facts. Works upon surgery, monographs, medical journals and every source of information have been searched and have had culled from them all their information for use in this work.

In preparing the *seventh edition* of this work, the author has made, as the pages of it show evidence, a careful study of the most recent contributions to the literature of fractures and dislocations, as found in the various American and foreign medical journals, and in the latest surgical treatises, including the treatise lately published by Dr. Lewis A. Stimson, of New York. Also the author has utilized the recorded facts and observances of Dr. A. Poinsot, Professor Agrégé of Medicine of Bordeaux and Surgeon to the Hospital, who translated this work into French and edited the French edition; and he has, besides, drawn from his own more recent personal experience.

We have no doubt the work will continue for a long time to hold the high position it has held since its first publication. The library of every physician who has much surgery to attend to is not complete without a copy.

THE PHYSICIAN'S VISITING LIST (Linsay & Blakiston) FOR 1885. Thirty-fourth year of its publication. Philadelphia: P. Blakiston, Son & Co.

This visiting list continues to maintain its popularity. It was the first one ever issued, and, we presume, there are more of them sold now than ever before. Every practicing physician should carry a visiting list; it will save him ten times its cost.

J. H. CHAMBERS & Co., of St. Louis, Mo., have also issued a visiting list for 1885. It has the usual facilities for keeping a daily account of visits made, making general memoranda, recording obstetrical cases, deaths, etc. It can begin to be used at any time, and will last a year.

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CEMENT FOR PORCELAIN.—Four parts of alabaster gypsum are mixed with one part of powdered gum arabic, and the mixture rubbed up to a thin paste with a saturated solution of boracic acid prepared in the cold.

Editorial.

American Public Health Association.—This organization met at St. Louis, October 14. There were seated upon the platform Drs. Albert L. Gihon, Medical Director, U. S. N., President; J. E. Reeves, of Wisconsin, First Vice-President; Hon. Erastus Brooks, New York, Second Vice-President; Drs. J. A. Watson, New Jersey, Secretary; J. B. Lindsley, Tennessee, Treasurer; Ezra M. Hunt, New Jersey, ex-President; Joseph Speigelhalter, Missouri, Chairman Committee of Arrangements, and G. P. Conn, President State Board of Health, New Haven.

We would be pleased to give a full abstract of the proceedings of the Association, but our space will not permit. We learn that many interesting papers were read relating to public hygiene, and some of them were discussed very ably by distinguished gentlemen present, eliciting much valuable information. The titles of a few of the papers were: "Hygiene of Occupations," "Sanitary Management of Cars and Stations," "Sanitary Responsibilities of the Citizen," by Dr. Gihon; "Hygiene of Eyesight of School Children," "School Hygiene," "Cotton-seed Oil as Food," "Milk Supply of Large Cities," "Sanitary Care of Stock in Transportation," "Ultimate Sanitation by Fire," "Sanitation of the Mississippi Valley," "Manufacture of Soda Water from Polluted Well Water," "Chemical Disposition of Sewage," "Duration of Infectiousness of Scarlet Fever," etc.

Mr. Henry Lamb, of Rochester, offered to present the Association with $2,000, to be contended for next year by those contributing papers, the subjects to be divided as follows:

First—"Healthy Homes and Foods for the Working Classes," $500.

Second—"On the Sanitary Conditions and Necessities of School-houses and School Life," $500.

Third—"On Disinfectants and Individual Prophylaxis Against Infectious Diseases," $500.

Fourth—"An Appliance and Means for Saving Life and for Protection Against Injurious Influences of Some Work and Occupations on Health," $500.

Essays to be ready April 5, and to become the property of the Association. Mr. Lamb also agreed to give $50 to defray the expenses of a Committee on Disinfectants, to be appointed in a manner which he described. The donation was accepted by a rising vote, and the matter referred to the Committee upon Resolutions.

Near a dozen papers were read by title only, which will probably be printed in the transactions. Among them we notice, ''Street-paving and Water Supply,'' "Public Sewerage and House-drainage,'' ''The Chief Local Factors in the Causation of Disease and Death.''

Dr. Geo. M. Sternberg, the very distinguished Surgeon of the U. S. Army, delivered an evening address on ''Disease Germs.'' He began by correcting statements that had appeared in the daily papers, made in a debate on cremation, that he was a disbeliever in disease germs. On the contrary, he was a profound believer in their existence, but was not prepared to go to the length of accepting all that had been said and claimed regarding them by observers in different parts of the world. The speaker dwelt on the morphology of the pathogenic flora, instancing their great variety of form and their modes of multiplication by fission, budding, etc. He spoke of his labors in the investigation of the causes of yellow fever, while a member of the commission which was sent to Havana several years ago by the National Board of Health, to study the nature of the disease in its habitat. The multitudinous forms of bacteria, bacilli, spirilli, were spoken of with suggestions as to the effect on the human system of changes or evolution in their lives. Mention was made of experiments on rabbits in the inoculation of gutter mud and the septic matter from various sources and of different kinds, and the lecture concluded with the projection upon a screen of micro-photographs, taken from life, of various microbes, highly magnified. Among others, a specimen of the bacillus tuberculosis. Each specimen shown was explained and commented on, and the exhibition closed amidst hearty and continued applause.

Dr. Bremer, of St. Louis, followed Dr. Sternberg, avowing a full belief in the views and claims put forth by Dr. Koch, of Germany.

A resolution was adopted to confer with the authorities of the World's Fair at New Orleans relative to a display in the interests of public hygiene.

Dr. A. N. Bell, of New York City, of the Committee on Epidemics, submitted a report in which it was averred that smallpox can be averted by proper vaccination. He recounted the sanitary measures used in Paterson, N. J., during the great smallpox epidemic in that city. The remarkable fact about the plague was that it raged most violently in the filthy portion of the city, and the lawless were the ones generally attacked, the shiftless and abandoned of both sexes being the first to succumb.

Dr. Hibbard, of Indiana, offered a resolution which, under the rules, was referred to the Executive Committee, viz.: That a committee be appointed to examine the subject of disinfectants, antiseptics and germicides in their relations to preventive medicines and sanitation, and that said committee formulate a table of these agents for the information of those interested, the agents to be classified so far as they may deem advisable according to their specific virtues, facility of application and economy of use.

In a paper by Dr. Eliot, of St. Louis, after the quotation of the expression that "Cleanliness was next to godliness," it was asserted that in the illy-ventilated houses of the poor, sobriety soon gave way to drunkenness. Perhaps no city in the Union, it was declared, had experienced more good from improved sanitary regulations than St. Louis. As Dr. Eliot remembered it in 1820, there was hardly a dry cellar in the city. It was no wonder, then, that Asiatic cholera took a firm hold here in 1849. The death list ran up to 1,200 in a single week during the scourge, and this in a population of only 50,000. A fire broke out, and it was thought it might relieve the city of the disease, but it only made matters worse. The death-rate in the early days of the city was very great, but improved sewerage and sanitary measures had made it what it now is—one of the healthiest cities in the world.

The Association was in session four days, holding popular meetings during the evenings. Washington was selected for the next place of meeting. The following gentlemen were elected officers for the ensuing year: Dr. James E. Reeves, Wheeling, W. Va., President; Hon. Erastus Brooks, New York, First Vice-President; Dr. H. B. Baker, Lansing, Mich., Second Vice-President; Dr. J. B. Lindsley, Nashville, Tenn., Treasurer. Executive Committee: Drs. H. P. Walcott, Boston; G. B. Thornton, Tennessee; D. W. Hand, St. Paul; Gust. Devron, New Orleans; H. B. Holbeck, South Carolina.

HARTNETT.—This man, who killed his wife several months ago and has been tried for the crime, found guilty, and sentenced to death, has not yet been hanged. Our readers will recollect that we have expressed the opinion that the man is insane. The Governor of the State, however, a few weeks ago, we understand, appointed a physician, who is superintendent of a lunatic asylum, to examine him as to mental condition, and he pronounced him sane. Whether or not he will eventually be hanged we do not know. Some think that he will not. We feel quite sure that Governor Hoadly has it at heart to discharge his duty, and that he would not permit Hartnett or any other man, during his term of office to be hanged, unless he fully believed that he was responsible at the time he committed the crime.

If Hartnett was of sound mind at the time he killed his wife, his conduct was certainly strangely in contrast with that of most men who are sane, under like circumstances. If his mind were in a normal state, he committed the act either in the heat of passion, or he coolly and calmly deliberated it as the result of feeling himself deeply wronged by the previous conduct of his victim, or in consequence of possessing a depraved nature, which took pleasure in committing brutal acts. In either case he would possess that love for his own life which characterizes all men, and which is essential to the mental soundness of every one. It is admitted by all psychologists that the feeling of self-preservation is one of the strongest, if not the strongest instinct of nature, and that it is essential to a normal condition—that the loss of it is positive evidence of lesion of the mental faculties.

A responsible man knows that when he commits a murder—kills another person without just cause; that is, without a cause recognized by the law as just—his own life will be forfeited, unless he takes precautions to circumvent the law. Of course, it sometimes happens that a murderer escapes all penalties, though he is arrested and tried for his crime; but no man, in his right mind, will trust to the chances only of lawyers' skill the saving of any thing so precious to him as his own life, if he forfeits it, without employing other means of escape. Did Hartnett, however, in killing his wife, before and after, act like a sane man under the circumstances? If he were sane at the time, according to every recognized principle of psychology, his instinct of self-preservation was one of his strongest instincts, and yet he did not make any attempt at escape after the commission of the crime, but spent the time until arrested in the performance of a lot of religious mummeries, as lighting some "holy candles," and calling upon Jesus, Joseph and Mary. There was no evidence that he had been entertaining great abhorrence for his wife, which might have led him to believe he would be justified in killing her, nor was there any evidence that we heard, that he killed her in a moment of great excitement. It was said by some, as we understood, that he had charged her with unfaithfulness, but all of her acquaintances testified that she was a very worthy woman, and that any suspicion by him that she was not, was but a delusion. Every one having had experience with insane persons, knows that it is very usual for them to bring base charges against friends and acquaintances. A lunatic becomes abusive on the slightest provocation. But granting that he entertained what might be termed a natural rage in consequence of suspicions, however unjust they might have been, and as the result of his anger he killed her, his conduct can not be made to accord with any correct notion of sanity. A sane man, if he had determined to slay his wife for dishonoring him, would first endeavor to have her crime fastened upon her, that he might obtain the sympathy of the community to aid him in the escape of all penalties. Or, if he believed that circumstances were such that he could not obtain the good will of his neighbors and the public—that he would fail in establishing his wife's guilt, that no one would believe his story—he would then plan to cover up his deed, so as to avert suspicion against himself, or he would arrange to escape. No sane man would be willing to sacrifice his own life, in order to punish his wife for wickedness that he really believed she had committed, if he thought he himself would be regarded as only a miserable murderer, who deserved the execration of every one.

The autopsy of Guiteau proved him to be insane, for there were found lesions of the brain incompatible with soundness of mind during life. Yet his assassination of President Garfield was far more easily explainable as being the act of a depraved but sane man, than the homicide of Hartnett. There was some color of plausibility that he believed he had been mistreated in failing to obtain an office, for which he believed he had claims; and, just at the time, there happened to be political excitement of a kind that, it was not unreasonable to suppose he believed that certain enemies of the President would assist him to escape the penalties of the law. Yet when his life's history was examined, such gross inconsistencies were revealed, as could not be reconciled with sanity; and he would have been pronounced insane, if the great general excitement had not made such a verdict impossible. But we must bring to a close this very imperfect article, written hurriedly in an hour's time. We had proposed to carefully prepare an article on the subject of Hartnett's insanity, quoting in support of the correctness of our statements the declarations of various eminent alienists, but our time has been too much occupied with business to enable us to do so.

LOCAL ANESTHESIA BY COCAINE.—We have read recently many articles in the medical journals in regard to cocaine as a local anesthetic, and had intended to present our readers with an abstract of what we had seen stated in regard to it by a number of physicians who had had experience with it; but upon observing in the Philadelphia *Medical News* the following editorial article, which we found to contain what we had proposed to embody in an abstract, we copy it entire, and thus save ourself the trouble of writing:

"Dr. Koller's observation of the effects of cocaine, in diminishing the sensibility of the eye, has been taken up with great enthusiasm by ophthalmologists, and numerous experiments and clinical observations have already appeared in print. In this country, especially, has the interest awakened by this important discovery borne practical results in various ophthalmic procedures. Dr. Noyes, of New York, had the good fortune to witness the application of Dr. Koller's solution to a patient brought for that purpose before the Ophthalmological Congress at Heidelberg, in September last. Since the publication of these observations, Drs. Knapp, Roosa, Agnew, and others, have made more extended investigations, which entirely confirm the first statements regarding its anesthetic and analgesic powers.

"Long before Koller's observations were made, it had been known that cocaine possessed the property of lowering—even of destroying—the sensibility of the sensory nerves. This physiological property had been ascertained by Schroff, but was more definitely established by Moreno y Maïz, whose monograph on the erythroxylon coca appeared at Paris in 1868 (*Die Pflanzenstoffe*, pp. 91–93). The latter distinctly states that cocaine has the power to impair sensibility when locally applied (*Ibid.*, p. 93), and is consequently entitled to the distinction of having made this important discovery. Dr. Koller has simply revived knowledge already existing; his merit, indeed, is less than this, for laryngologists have been using a cocaine solution locally to diminish the sensibility of the larynx, to facilitate manipulations on that organ. *Palmam qui meruit, ferat.* The investigations of an American physiologist have, also, been quite overlooked. Dr. Ott made an elaborate study of cocaine, and demonstrated its chief properties, ten years ago (*Cocaïn, Veratrin and Gelsemium*, Philadelphia, 1874). He showed, by experiments on animals, that at first and in small doses it stimulated, and afterward in sufficient doses entirely destroyed, sensibility, and that this result is due to an action on the posterior columns of the cord and on the sensory nerves.

"All observers are agreed that cocaine is a mydriatic. Knapp has shown that 'it is a mydriatic which, even in producing a maximum dilatation of the pupil, takes away only a fraction of the power of accommodation.' The mydriatic effect, further, is peculiar, in that 'the accommodative power is restored much sooner than the normal size of the pupil.' The dilatation of the pupil begins in from ten to twenty minutes after the solution is instilled into the eye, and reaches its maximum in from thirty to forty minutes; remains stationary for half an hour, and then slowly declines, disappearing wholly within twenty-four hours (Knapp).

"It is a fortunate circumstance that cocaine does not irritate the eye, and, when the solution is instilled, no pain or discomfort of any kind is caused by it. The sensibility of the eye begins to lessen in three minutes, and continues to diminish for about twenty minutes, when a restoration to the normal rather quickly takes place—the sensibility being restored in about a half-hour. The same strength of solution is not equally effective in all persons; there are the same variations in susceptibility as are manifest in the actions of other narcotics; but, on the whole, the qualitative effects are remarkably uniform.

"Two per cent. is the strength of the solution which has been chiefly employed, but this is not strong enough in many cases. A four per cent. solution will, probably, prove most generally suitable. As the analgesic action continues about half an hour, and begins within five minutes after the application, we have in these data the guides to the time and number of instillations necessary. Every four minutes for twenty minutes previous to the time of the proposed operation, three, four or five drops should be put into the eye. If the procedure undertaken occupies more than five minutes, renewed instillation becomes necessary at the same rate as before.

"The application of cocaine will probably facilitate manipulations of various kinds. Reference has been made above to its utility in laryngological operations. Roosa has employed it with success in 'tympanic neuralgia'—two instillations relieving the pain in ten minutes. Knapp ascertained, by actual trial, that the preliminary injection of cocaine solution rendered the passage of urethral instruments painless.

"The foregoing facts indicate a wide range of usefulness in the applications of cocaine. It promises to facilitate in a remarkable degree various operations and manipulative procedures on the eye, ear, larynx, urethra and rectum. As it removes the sensibility of the sensory nerves, and is itself free from irritating qualities, subcutaneously, probably it will be found to relieve peripheral neuralgia, and other local painful affections. How far its systematic action will antagonize painful states of the sensory nerves remains to be established; but as it influences the sensory columns of the cord as well as the spinal nerves, there is a high degree of probability that it will prove effective in such cases.

"Cocaine is an alkaloid obtained from *Erythroxylon coca.* It has decided basic properties, and combines with acids to form salts. The alkaloid itself is but slightly soluble in water, but the salts dissolve readily. The hydrochlorate has, thus far, only been employed for the purposes above mentioned.

"The only officinal preparation of erythroxylon is the fluid extract, and this appeared for the first time in the Pharmacopœia of 1880."

AMERICAN ACADEMY OF MEDICINE.—This organization held its ninth annual meeting in the city of Baltimore, October 28 and 29, Dr. Benjamin Lee occupying the chair. Forty-one candidates were added to the Fellowship of the Academy by the cast of the secretary's ballot. All who join this society must have had the degree of A. M. conferred upon them.

There were a great many papers read, but we have not space even to mention their titles. We will only mention a paper read by Dr. Jackson, of Philadelphia, in which he urged the passage of a license law by Legislatures, in order to practice medicine, requiring examinations by State examiners, uncontrolled by the schools.

Dr. Albert H. Gihon, U. S. N., was elected President for the ensuing year. The next meeting will be held in New York.

An Old Subscriber.—Dr. J. W. Underhill, of this city, in a note to us, states that he has all the volumes of the Cincinnati Medical News on his shelves bound, from the issue of the first number, January 1868, to the present time. The doctor has thus made available a large amount of very valuable reading matter. A bound medical journal differs from other medical works in that it becomes more valuable with age. We hope the doctor will live to add many more bound volumes of the Medical News to the shelves of his library.

Yale Fountain Pen.—This is a pen that every physician should carry with him. It is the only fountain pen that will always write. It carries about two drachms of ink—enough to write two quires of paper or more. It has no screws or conduits to get choked up. It may get stepped upon and broken, if permitted to fall upon the floor, but it can not well get out of order. One of them is worth a dozen stylographic pens. Price, three dollars, with a good gold pen. Manufactured by the Yale Fountain Pen Co., 149 William Street, New York.

A. A. Mellier, Druggist.—This gentleman, whose advertisement appears in our advertising pages, has received letters from the following gentlemen. The communications should receive the attention of our readers:

Cort F. Askrew, of Corydon, Ind., states: "I am using Mellier's Standard Buggy-Case, and consider it the neatest, most durable and most convenient that I have ever seen."

C. W. Prindle, M. D., of Grand Rapids, Mich., states: "Have used Tongaline extensively in all forms of neuralgia and rheumatism, finding it a safe, easy and efficient remedy. For all cases of neuralgic or rheumatic pains, accompanying the colds that predominate in this damp and malarial region, it seems to be a specific. It take pleasure in recommending it to the profession."

THE
CINCINNATI MEDICAL NEWS.

Vol. XVII. No. 204. Old Series. | December, 1884. | Vol. XIII. No. 12. New Series.

Original Contributions.

Lead Palsy.

A Clinical Lecture

BY PHILIP ZENNER, A. M., M. D.
Lecturer on Diseases of the Nervous System in the Medical College of Ohio.

Gentlemen:—The patient before you states that he has paralysis of the arms. It will be our first object to determine whether his statement be correct. The muscular power is tested, firstly, by appearances, secondly, by the ability to perform voluntary movements, and by the power of resisting passive movements on the part of the examiner. In this patient we see that the hands are not held in their normal position—they both drop at the wrist—a condition termed wrist-drop. The patient is unable to extend the fingers or wrist, and can make no resistance when the examiner forcibly extends these parts. We, therefore, know that there is paralysis of the extensor muscles of the fingers and wrist. Having determined this, we must now, before attempting to make a diagnosis, examine whether any other muscles are paralyzed, whether there is any paralysis of sensation, or whether there are any other symptoms of involvement of the nervous system. Examined in the way already mentioned, we do not find paralysis of any other muscles. We next seek for any impairment of sensation, first inquiring for subjective symptoms, a feeling of numbness, formication, or the like. Patient has not had such symptoms. We examine the acuteness of tactile sensibility by touching the skin very gently with the tip of the finger in the various parts of the body, and observing whether the touch is immediately recognized (patient's eyes being closed) and correctly located. Thus examined, we find no impairment of tactile sensibility. We then test the muscular sense, observing whether patient can distinguish differences of weight; whether he always knows the position of the limbs when they have been placed in various postures, the eyes of the patient again being closed. The muscular sense in our patient appears to be normal. We must next examine the so-called vegetative functions—the circulative, secretive, nutritive. All of these may become affected in case of disease of the nerves or the nervous centers. The only change of this character which can be found in our patient is an apparent atrophy of the paralyzed muscles. The muscular layer on the back of each forearm seems to be smaller than usual. This wasting of muscles may be merely from disuse, in which case it is termed physiological atrophy, or it may be the result of degeneration of the muscular tissue, when it is termed pathological atrophy. We have an easy method to determine which of these two kinds of atrophy is present in our case. That method is the test with the electrical current. In physiological atrophy the muscles continue to contract when the current is applied in exactly the same manner as healthy muscles. But in pathological atrophy there is a great change in the electrical reactions. One difference, and that is the only one I will have time to speak of to-day, is that such muscles will not contract when the faradic, or interrupted, current is applied to them. We will thus examine our patient. When I apply the electrode to the flexor muscles of the arm, you observe they contract, and the fingers are flexed. When I apply it to the extensors, we observe no movement. There is, therefore, in our case, pathological atrophy of the extensor muscles of the fingers and wrists of both arms. This is a very important fact in the diagnosis, for it enables us to determine the character of the paralysis. It tells us, in this instance, that we have a peripheral paralysis; not a paralysis due to some disease of the brain, or of certain parts of the spinal cord. We know that for this reason: The spinal nerves, which supply the muscles with motor filaments, pass directly into the anterior part of the gray matter of the cord, where they terminate in the large ganglion cells. These cells, therefore, control the muscular power. But they do more than this. They also influence the nutrition of the muscles. When they are destroyed, the muscular fibers supplied by them degenerate. The muscles also degenerate if the nerves connecting them with the ganglion cells are destroyed. This degeneration is shown by the altered electrical reaction already spoken of. Therefore, we know of our patient, in whom there is this altered reaction of the muscles, that the paralysis is due either directly to disease of the muscles, or of the nerves supplying them, or of the ganglion cells of the cord in which these nerves have their origin.

The examination, then, of our patient has shown us that we have a peripheral paralysis of the extensor muscles of the fingers and wrists. Can we make any farther diagnosis than this? Yes. What we have already learned is sufficient to tell us, with a considerable degree of certainty, both the cause of the disease and its exact locality. First is to the cause. We have a case of lead palsy—of paralysis due to chronic poisoning with lead. The form of paralysis here presented is almost sufficient in itself to make a positive diagnosis of this kind. The facts that the paralysis is symmetrical in both arms, that it is a peripheral paralysis, that there is no impairment of sensibility, that the supinator longus is not paralyzed (the supinator longus, as well as the extensors of wrist and fingers, is supplied by the musculo-spiral nerve, and in those cases, which occur not uncommonly, where paralysis follows pressure upon this nerve, all these muscles are paralyzed together), are those which enables us to make a diagnosis. These conditions are almost always found in lead palsy; they are almost never found elsewhere.

In one patient we have additional facts, if such should be deemed necessary, to make the diagnosis certain. The man has been working in a white lead factory. He has suffered with colic. He has the characteristic blue line along the margins of the gums.

Chronic poisoning with lead affects first the digestive apparatus, producing dyspeptic symptoms: colic, impaired nutrition. Only later does it affect the central nervous system. It may affect the brain, causing headache, delirium, convulsions, and may thus lead to a fatal issue. More frequently it causes paralysis of muscles supplied by the spinal nerves. Wrist-drop is the most common form of lead palsy. But other muscles may be affected. I have quite recently seen a case, in consultation with another physician, in which nearly all the voluntary muscles of the body were paralyzed. In such cases, on post-mortem examination, deposits of lead are found in many of the internal organs, to the largest extent in the bones, spinal cord, liver and brain.

It has long been a question where the primary seat of disease may be in lead palsy. On post-mortem examination, there is found disease of both the muscles and of the nerves, and it was long supposed that here was the primary seat of the disease. But disease of the ganglion cells of the spinal cord will secondarily cause, as already explained, disease both in the muscles and nerves; and as disease in these cells has been found in a number of cases of lead palsy, it is now generally believed we have to look to this part for the primary seat of disease. Such disease of the gray matter of the cord is termed poliomyelitis, and, as only the anterior part of the cord is affected, we usually speak of anterior poliomyelitis. We find the same kind of disease in infantile paralysis, and in progressive muscular atrophy. But in the first it is acute in its onset, while in the second it is chronic, but has a great tendency to extend.

In one case, where the paralysis is limited to the extensor muscles of the forearm, the ganglion cells are affected, which are in the lower part of the cervical region of the cord.

The prognosis depends upon the intensity of disease in the gray matter of the cord, this being to a degree indicated by the duration and extent of paralysis, and by the electrical reactions. In case the ganglion cells are entirely destroyed, and the muscular tissue altogether disintegrated, we can hope for no improvement. If the muscle has completely degenerated, there is no electrical reaction whatever. At an earlier period, even when the faradic contractility is entirely lost, the muscle will contract when the galvanic current is applied to it. In this patient, as the paralysis has only been of a few months' duration, and as the muscles readily contract on application of the galvanic current, we may hope for improvement, if not for complete recovery. After the cause of the disease has been removed, avoidance of working in lead, etc., there is no new involvement of muscles. There is not a tendency, for the paralysis to extend, as in progressive muscular atrophy.

The treatment in this case will consist of the internal administration of iodide of potash, and the application of electricity to the muscles. The object of the iodide of potash is the elimination of lead which is still in the system.

We will apply the galvanic current to the paralyzed muscles. The electrodes will be applied directly over the affected muscles, and the current continuously made and broken, for it is only when the current is made and broken that muscular contractions are produced. The faradic current would, at the present time, be worthless, because it can cause no muscular contractions. But after there has been some improvement, the faradic contractility will again return, and the faradic current may then be applied, with benefit.

Croup.

BY DR. T. V. CRANDALL.

Read before the Philadelphia County Medical Society, October 8, 1884.
Reported for the CINCINNATI MEDICAL NEWS.

THE essential characteristics of true croup and diphtheritic croup, have been under discussion for a number of years. The last paper, I believe, read before this Society on this subject was in November, 1875, by our popular President, Dr. Welsh. Many prominent German and English authors advocate their identity, while our best American authorities regard them as distinctive, and many medical gentlemen have expressed *positive* views in the recent issues of the medical journals against the identity of these diseases.

On seeing the annual return of deaths from croup, for 1883, at five hundred, I resolved to correspond with physicians enough to obtain reports of one hundred cases, and make a home study. Through private sources and the Board of Health register, I obtained the names, residences, sex, age, date of death of patients; names and addresses of the attending physicians, and report these results. My first inquiry, "Did you perform tracheotomy?" shows fifteen cases operated on and death resulting by the disease extending downward. Second, "Did you find diphtheritic complications?"—twenty-nine cases are reported as diphtheritic croup; seventy-one as true croup. None of the diphtheritic croup were operated on; the physicians giving as a reason, "that to operate in these cases is useless." "Was permission to operate refused?" This answer is avoided or omitted by twenty-five; twenty replies did not think it of any use to ask or to operate, as their case was too far gone when they were called; twenty-six were refused by relatives. In connection with the above investigation, I will make a few comparisons between the diseases under discussion, though familiar to you all. From 1846, when one hundred and eleven cases of true croup were reported, there was a gradual increase in death until 1859, when it reached three hundred and twelve. No cases of diphtheria are reported until 1860. From 1850 to 1860 there were 2,539 deaths from croup; from 1860 to 1870, 3,031 deaths from croup, and in this decade, 2,795 deaths from diphtheria. Since 1860 diphtheria becomes an established fact, giving, say, thirty per cent. of diphtheritic croup, yet there is no great increase in true croup returns above what we would expect by growth of population.

"It is difficult to estimate the number of deaths from true croup since diphtheria has made its appearance in the mortality list of the city, as many cases of diphtheritic croup have unquestionably been returned as pseudo-membranous laryngitis." (Meigs and Pepper.) I lean toward the belief that many physicians losing cases of croup, and believing in its identity with diphtheria, would take the benefit of the doubt and call it diphtheritic on general principles; *i. e.*, their conclusions easily get the start of their reasoning, although we have such overwhelming proof of the distinctiveness of these diseases.

The largest weekly return in 1883 was twenty-four deaths from croup, in the week ending December 29. The first day, heavy snow, followed on the second day by rain; third day, light rain and cloudy; fourth day, cloudy; fifth day, light rain; sixth and seventh days, clear, with the thermometer 30° to 34° above zero. This condition of humidity, with a mean temperature of 31°, and the ground covered with snow and slush, proves that cold and dampness produce croup. All writers agree that diphtheria is epidemic and contagious. "Croup is sporadic. We may produce croup in rabbits and dogs by an application of caustic to the tracheal mucous membrane, and the inspiration of hot vapor of water" (Hensch). "It is *on* this membrane that croup begins. It is *in* the mucous membrane of the pharynx that diphtheria begins as an exudation, and spreads to and into the tracheal membrane." (Flint, Bartholow, Da Costa, Day, and others.) The physicians of this city, who have kindly nnswered my inquiries, report seventy-one cases of true croup in a hundred that had no diphtheritic complication, and fifty say directly, or indirectly, under the head of general remarks, that they were not called early enough to do much by treatment; the immediate cause of their being called was sudden attacks of dyspnœa, etc. But how different when constitutional symptoms in diphtheria are so alarming that, before there is exudation, the physician is called to treat these symptoms, caused by specific poison.

We are unable to say that the pseudo-membrane of croup extends to or is found in the stomach, kidneys, intestines, or any part except the trachea or bronchi. All authorities agree in finding diphtheritic deposits on all the above membranes, and say it may be found on any mucous membrane or abraded surface. These advocates of identity distinctly call it diphtheritic when found in the above localities, but identical with croup when it occurs on the fauces and tracheal membranes. "Truly, then, this idea of unity is drawn from coincidences. The pseudo-membrane in both, and the cynanche not always in diphtheria, but always in croup, being the principal feature of the case." (Crouch. "When only the epithelium is destroyed, the fibrinous exudation lies only on the 'membrana propria' of the mucous membrane, from which it can be readily stripped off, without loss of substance. This is croupous. When the primary necrosis involves the tissue cells, as well as the epithelium, the fibrinous exudation extends from the surface *into* the tissue of the mucous membrane, aud can not be removed without loss of tissue. This form is properly diphtheritic." (Flint.) There are greater pathological differences between these diseases than between typhus and typhoid fevers, and yet we make marked distinctions, and draw the lines closely in diagnosing them.

We have seen that the cause of croup is cold and dampness. We all know diphtheria is caused by a specific poison. We find croup local, and constitutional disturbances subsequent upon the local trouble. We find the constitutional symptoms first in diphtheria. We have found croup in the larynx and trachea, and diphtheria anywhere—more frequently in the pharyngeal membrane. The most important change is found by pathologists in the blood. And here, also, is the greatest point of difference. A healthy child is taken ill with croup without any previous time or blood-poison to debilitate, and dies in three or four days—in a few hours, sometimes, after having played and been around the house. Do you find the extensive changes in the kidney structure reported after diphtheria? We do not have endocarditis, or rapid fatty degeneration of the heart, and numerous structure changes reported in diphtheria, nor the altered condition of blood.

TRACHEOTOMY.

I am an advocate of tracheotomy. There are many physicians in this city who do not believe in it. Just in this particular this question of identity of these diseases needs to be more definitly settled. If they are identical, it is argued that to operate in diphtheria is useless. Some of the answers to my inquiries say it would be madness! Then this identity theory is mischievous, inasmuch as, if physicians do not believe in, and make themselves familiar with, the operation, they neglect the most important remedy. Prof. Von Langenback, of Berlin, made a study of 556 operations from 1870 to 1876. Thirty per cent. recovered, and of these eighty-five were on children under two years of age, the youngest seven months old (*Am. Jour. Med. Sciences*, April, 1878). Dr. George Buchanan operated on 46 cases; 17 cured, 29 died; of these, true croup, 16; cured, 6; died, 10. In diphtheritic croup, 30; cured, 11; died, 19 (*British Med. Jour.*, September 4, 1876). Dr. Boeckel reports 22 cases, and 13 recoveries (*London Med. Record*, November, 1880).

A physician of Strasburg operated on a child six weeks old successfully; Mr. James Bell, of Edinburgh, at six months; Mr. Tait, seven months; Dr. Greenfield, ten months; Mr. Cooper Foster, at eleven months. (*American Journal of Medical Sciences*, Jan., 1881.) And a larger percentage of younger children could be obtained, if the effort were made more frequently. Bayne found, in investigating 920 cases, that better results were obtained in private practice than in hospitals. (*Medical News*, Aug. 2, 1884.)

Is not the question, "Have any lives been saved by tracheotomy in diphtheria or croup," paramount to "how many?" Is not the patient fully entitled to the chance by a simple opening of the wind-pipe, which gives no constitutional surgical shock? If we are refused by parents, it is in part our own fault. The lack of confidence on our own part is quickly observed by the laity. Let a sufficiently determined and enthusiastic physician or surgeon believe he can save a child, and show it in manner, and the loving mother will soon catch the inspiration. Let him persevere, and a fair percentage of successes will reward him for his untiring energy.

I have quoted some foreign authors on statistics of tracheotomy, as we have not yet arrived at that state of perfection in gathering statistics which they have. If our Society had a record-book, and its members would agree to make annual reports on this subject, we could arrive at an approximate idea of how much this operation is resorted to in this city.

If every hospital in the city would prepare a room with the necessary apparatus, and do away with "red tape," to the extent that any physician in good standing could take his patient there and operate himself, if he wished to, putting the patient in care of a trained nurse, admitting the mother, or some near relative; if some, or all, of the dispensaries did the same, then there would result a decrease in the death-rate of croup. At present we have some practitioners who use turpeth mineral, and *never lose a case.* Others calomel, with almost like success; then there are as many known cures as there are for rheumatism, and yet a death-list of four or five hundred a year.

CASE NO. 1.—I was called, December, 1875, to see Lizzie B., æt. 4 years; arrived at 8 P. M.; found child on settee; complete apnœa existed at the moment of my arrival. The attending physicians had abandoned the case as hopeless, earlier in the day. With the assistance of one woman, who held a lamp with a broken chimney, I then divided the skin-fat and fascia by one incision, exposed the commissure of the sterno-hyoid muscle, and made an incision into the trachea. Not having any assistants to hold retractors, I separated the edges of the wound with my bent ear-forceps in my left hand, while I inserted a single canula with my right hand. This little instrument has served me in emergencies instead of one or two assistants, on several occasions, for, by inserting the forceps, closed, into the tracheal incision, I separated the walls, introduced the canula, and obviated cutting away the walls of the trachea, as recommended by some authors. After the first expulsory efforts, which were very violent, the child breathed naturally, the pulse came down, full and strong. The temperature, 105°, fell, in a few hours, to 102°. On the 11th, I asked my friend, Dr. Swayzee, to assist me in removing the single canula, and inserted a double canula; he expressed serious doubts as to the child's recovery. She is now a large, healthy young girl.

CASE NO. 2.—December 15, 1876. J. C., age 3 years 6 months. This case of true croup I was called to, too late. The usual treatment of no avail, and apnœa almost complete. I operated with the assistance of women, and all went well, until the third day, when, in my absence, and in the temporary absence of a level-headed relative who had nursed my little patient faithfully, an ignorant women in charge allowed the tube to become displaced, and before I reached the house the child had died of suffocation. I felt keenly the disappointment, as I had within my grasp another successful case.

Case No. 3.—December 4, 1877. Martha G., æt. 3 years. Diagnosis, membranous croup. In symptoms and other respects, similar to Case No. 2. I treated this child with the usual remedies, including lime vapor, etc. On the 16th, at the last moment, I obtained consent of parents to operate, assisted by Dr. R. G. Stretch. The patient did well until the night of the 18th. The room was narrow and long, with a stove in the middle, and a window at one end. I placed the patient farthest from the window, but, on her own responsibility, during the night, the mother moved the crib next to the window, opened it so her child could get more air. On the 19th I called my friend Dr. Stretch to see the case with me. She died of pneumonia.

Case No. 4.—February 23, 1878. Henry W., æt. 4 years 3 months, had had croupy cough, short and abrupt in character, with a crowing and whistling inspiration. The treatment, turpeth mineral in three-grain doses every three hours until emesis was produced; but I was alarmed at the great prostration it produced; resorted to alum, expectorant mixtures, principally ipecac, steam inhalations, and yet inspiration became more labored, and was attended with violent efforts. The strength of the child being sufficient, notwithstanding the emetics (but paroxysms of dyspnœa were distressing, the child standing upright and raising the arms in the air to increase the action of the respiratory muscles). When in the last struggles, I operated, inserting a double canula. All went well until the ninth day. I had removed the canula each day after the fifth day of insertion until I was satisfied it was safe to permanently close the opening on the eighth day. On the ninth day, thinking the child well enough not to require careful nursing, the family allowed him to take a severe cold, and he died of congestion of the lungs.

Case No. 5.—Elwood D., æt. 5½ years, temperature

106°, which was reduced, and as he was in spasms when I first saw him, I waited developments, which proved to be variola. I put him in front room, third floor, with his father as nurse. A severe laryngitis set in on the seventh day of eruption; expectorants, emetics, hot fomentation to throat, lime vapor and the usual remedies, chlorade potassa and iron, failed to give relief, until suffocation set in sufficient to make his case hopeless. Unable to get a neighboring physician to assist me, I operated with the assistance of the father. I administered chloroform, and by lamp-light successfully inserted a double canula. On the seventh day I removed it and closed the wound. The boy made a good recovery, and, with the exception of some chronic conjunctivitis, is well.

Case No. 6.—December 15, 1882. Johnny C.; was called second day of the disease, and symptoms were very severe; increased rapidly, without relief by medical treatment. I sent for Dr. Ivison, who gave chloroform, and I operated. This child made a good recovery from croup, and died subsequently from another disease—heart disease, I believe, as I was not present; but tracheotomy was a success. The child ate heartily, slept well, played, was dressed, and regarded by myself and all as well; had been discharged a week from treatment, when he suddenly, and almost instantly, died; but as a post-mortem was refused, I never knew the cause.

Case No. 7.—January 17, 1883. Alfred P., æt. 3 years 9 months, presented same symptoms as Case No. 1, and on the third day was considered hopeless, unless tracheotomy could save him. The surroundings were not inviting; the only room available was a large one, with a door opening into the street; this was nailed up, and admission gained from the rear of the house. I operated on this child, and although I nearly lost him several times, by the canula closing with loose fragments of pseudo-membrane, by careful nursing and close personal attention, I was successful in this case. I used a mixture of one drachm of acid phosphoric dilutum to six drachms of glycerine, as a solvent of the membrane which formed below the opening. This mixture was more successful as a solvent than any I had ever used. I am indebted to Dr. Pepper for the suggestion of its use in diphtheria.

I now read Dr. J. F. Stone's account of

Case No. 8.—Mabel S., æt. 3 years. A beautful, healthy child, with a previous good history. After complaining of throat trouble for two or three days, was seen by Dr. J. F. Stone, and on examination no exudation, but swollen, red tonsils. May 3, slight fever and huskiness of voice. On the evening of that day an increase in croupy symptoms, and considerable dyspnœa at intervals; rapid pulse, high temperature. On the morning of the 4th, a remission of unpleasant symptoms, only to recur more decidedly in the evening. The 5th gave the same, but more severe, and so rapidly did the evidences of suffocation increase, that it became evident that a fatal result must ensue, unless relief could be had. Dr. Crandall, who had seen the case on the previous day in consultation, was again summoned, and concurred in the decision that the only hope for prolonging life lay in the immediate performance of tracheotomy, which he did. The immediate results were truly gratifying to all, and were followed by care and watchfulness unsurpassed, which resulted in recovery.

I will state that when I was first sent for, I advised to try medical remedies further, and postpone tracheotomy, thinking that Dr. Stone could cure the case by that means. After twenty-four hours of close application, the patient grew alarmingly worse, and we administered chloroform and operated. This case resisted the closing of the wound. On the fifth day and thereafter, each effort to close the opening was accompanied by dyspnœa, and gradual granulation seemed to be the best method. I will ask Dr. Stone to detail the peculiar features of this case.

In my treatment of croup, and after-treatment of tracheotomy, I have concluded it is not best to canopy a bed, or place a child in a small room. The temperature is too suddenly changed, the air is quickly vitiated; the child, needing all the oxygen it can get, is deprived of it. I observed in No. 1 case, when I ordered a piece of unslaked lime to be put in a pan on the stove, the father did it in true Irish style, by putting a bucket of lime in a tin wash-boiler, the effect on the patient was salutary, thinning the discharge from the canula. I used local lime-water spray, with a Codman & Shurtliff Steam Atomizer, at intervals of half an hour. Leaving out of the question laryngotomy and laryngo-tracheotomy, I simply did tracheotomy cutting, as low as the third ring. The inferior thyroid vein must be pushed aside. There is no necessity to do much cutting after the skin and fascia are divided. The thyroid gland was removed in part in two of my successful cases.

DISCUSSION ON CROUP.

Reported by G. BETTON MASSEY, M. D.

Dr. J. Solis Cohen, in opening the discussion, said: The principal impression gained from this paper is the importance of tracheotomy. As regards the identity of these diseases, while I contend that there is a difference, I am not prepared to recognize so great a difference as is claimed by the reader of the paper. Croup and diphtheria do not present in the alleged proportionate frequency. True membranous croup is a very rare disease, and that is the reason so many disbelieve its existence. The series of successful tracheotomies, reported by Dr. Crandall, is very remarkable, and I trust that in future his success may continue to be as great. It is certainly greater than any that has been reported in this or any other city, probably, in the United States. Some years ago (1873), I prepared a paper for this Society, in which the results of more than five thousand cases were given. The proportion of successful operations was about one in four. Before that paper was presented, operations had been rare in Philadelphia; since then they have become more frequent. The ratio of success is not always maintained in one's later experience. Thus the late Dr. Hodge, who at one time reported four cases, three of which recovered, told me that he had subsequently operated seven times in succession without another recovery. Dr. Jacobi, whose success had been exceptionally good at one time, informed me some years afterward that he had been so unfortunate as to lose one hundred cases in succession, and thus his early confidence in tracheotomy has been modified.

The reason for this variation of results is, I think, plain. We are careful of our first cases. We see them frequently after the operation, just as the writer of the paper has done. When we become older, this time is not at our disposal. The after-nursing I regard as of the very highest importance, and I have long made it a rule never to operate unless sure that this will be properly attended to. The time for operation is a question of great moment. The best rule is to operate as soon as the thought of the necessity comes into your mind. Success depends on early operation, other things being equal. The tube appears to me to be a necessity. To dispense with it I regard as dangerous, notwithstanding it is thought by some to produce irritation, and thus favor the deposit of new membrane. A few years ago, impressed with the encomiums of Dr. Martin, of Boston, I adopted the plan of keeping the edges apart by ligature without a tube; but inattention in nursing allowed the opening to become so frequently occluded by the soft parts, in the motions of the child, and suffocation, fortunately overcome at the moment, having ensued on one occasion, I have felt no desire to repeat the experiment.

Steam in the room, and the maintenance of an equability of temperature, are important. If I had but two things to depend upon in croup, I would choose vapors from slaking lime. But a small piece in a pan of water upon the stove will not answer. Copious disengagement of vapors are needed, just such as were produced by the ignorant Irishman mentioned in the paper. I have no notion that the action of the lime is chemical, although I am aware of its slow action on membrane in a test tube. I believe that it acts mechanically. Small particles of lime are carried up with the vapor of water; these get under the false membrane which does not everywhere hug the tissues closely, and act as minute wedges; the accompanying vapor of water follows and detaches the products.

I believe that I have seen life saved more frequently by lime used in this manner than by tracheotomy. Dr. Crandall has been fortunate in braving the contingencies that surrounded some of his cases. There are very few men brave enough to operate without adequate assistance, and with the light furnished by an uncertain lamp. Anomalous blood-vessels often give unexpected trouble.

As regards the point of incision, my own plan has been to perform the low operation—that is the one below the isthmus of the thyroid gland. A larger tube can be inserted there, and the wound is further from the seat of disease. It is true this is the more difficult operation, but there is no occasion for a hurry, unless immediate death is threatening. The ten or fifteen additional minutes required for a deliberate operation, steal nothing from the patient's chance of life. In an emergency, of course there is no choice. All the tissues may have to be incised in one cut. Another fact rendering the lower operation more favorable, is the lessened liability of coming directly upon masses of pseudo-membrane, which may be forced down the trachea in the very act of incising it.

An important point, too, not appreciated by the majority of operators, is that this false membrane is a foreign body, and should be removed. The first thing to be done after the trachea is opened, is not to put in the tube, but to make a thorough search for false membrane, and to remove all within reach. Then the edges of the cut should be kept asunder and cough be excited to drive more out. If this were done more frequently, the statistics of recovery from the operation would be much more favorable.

We sometimes have hemorrhage to deal with. The best method to treat this is to plug the wound about the tube with absorbent cotton. Never hunt for the vessels; pressure gives the best results. The character of the tube is important; these are often found made of hard rubber, but I do not consider such material desirable. It is thicker than silver, thereby lessening the caliber, and does not tarnish when the wound goes wrong; and this latter characteristic of silver tubes is frequently of service. The tube should be of equal caliber throughout, and not made tapering, so that the patient may get all the air he is supposed to get.

[In answer to an inquiry from Dr. H. R. Wharton as to his use of chloroform, Dr. Cohen replied that the operation was made easier by anæsthetics, but the safest plan is not to use them. Ether is out of the question, if ordinary artificial light be close. The patients were usually numb and insensitive from impending carbonic-acid poisoning, and, when retaining sensibility, often seem to understand the purpose of the operation, and do not struggle. Struggling should be prevented by wrapping the trunk and limbs in a sheet or towel.]

Dr. H. R. Wharton:—I agree with Dr. Cohen that the results of Dr. Crandall's operations have been remarkably successful. The results of my own cases have been fairly encouraging.

As to the two diseases under consideration, I believe in their non-identity. With Dr. Cohen, I am opposed to the use of an anæsthetic in the operation of tracheotomy, and believe that I have seen two cases lost through its use. The after-treatment of cases of tracheotomy, when performed for croup or diphtheritic croup, is most important, and I consider a moist atmosphere very important in these cases. At the Children's Hospital, in this city, we have a room especially fitted up for tracheotomy cases, which can be readily filled with the vapor of steam from steam-heating pipes. The permanent removal of the tracheotomy tube has, in my experience, often been a matter of greater difficulty than its original introduction. I recently had a case in which the tube was removed on the thirteenth day; the condition of the patient was good, the temperature and pulse being normal. An attack of dyspnœa supervened two hours after the removal of the tube; the gentleman left in attendance was unable to reintroduce it, and when I arrived the child was dead. I have performed tracheotomy five times for diphtheritic croup, with two recoveries; one of the fatal cases was the one just alluded to, which died on the thirteenth day after the operation, from an accidental cause.

Dr. J. M. Barton:—I regret that Dr. Cohen has not given a more definite rule "when to operate" than "when you begin to think of tracheotomy then is the time to do it." As soon as you make a diagnosis, and, perhaps, before you make a diagnosis of membranous croup, you think of tracheotomy. I was called in two cases lately by recent graduates, to perform tracheotomy in croup. Doctors, parents and friends were all urgent for immediate operation; they were evidently under the impression that, without operation certain death, with operation instant recovery; the cases were not urgent; they both had croup, but there was no important obstruction to respiration; under careful treatment, which had been neglected, they both recovered without tracheotomy. My own rule has been, when the tissues above and just below the sternum decidedly recede during inspiration, when the face becomes slightly livid and the respiration hurried, with the usual symptoms of croup, the time to operate has arrived.

I have not found ligatures of much use in keeping the wound in the trachea open. In operating low down in a young child, with small and deep trachea, the ligatures pull directly toward the surface. A probe bent into a circle and a hook fashioned on each extremity, will keep the wound open by its spring, until a properly fitting tube can be obtained.

Is it desirable to operate *in extremis?* I have operated on several such cases, in which artificial respiration has restored them, but they all perished in from one to three days.

Dr. Nancrede:—I have been much interested in the excellent paper read by Dr. Crandall, but dissent from the evident impression intended to be conveyed by the writer, that tracheotomy is a trivial operation, and one which may be undertaken without any hesitation. I am not ashamed to rank myself with those surgeons who dislike such operations, especially when so bold an one as Bilroth says that he blames no surgeon for declining to perform laryngotomy on a young child. This may seem exaggerated language, but although in the majority of cases the operation is a simple one, yet it may demand all the surgical skill and nerve that the surgeon is possessed of, as in the last tracheotomy I performed. Two cases have been related this evening, in which death occurred during the operation by most competent operators. Bilruth has had a similar experience, and I know of a number of others.

An otherwise good general practitioner, with a previous hospital experience, sent for me on one occasion, saying that he had opened the trachea, but could not introduce a tube. Upon examination I discovered that he had sliced off a portion of the right ala of the thyroid cartilage, but had failed to open the trachea at all. Other operators had cut either the normally or abnormally placed carotid artery, or had dissected between the trachea and the carotid artery until they had reached the vertebræ. Other accidents have also happened, which should make us pause, while we recall the fact to mind, that if we do not get through the operation successfully, we kill our patient. I can not resist the impression which my experience has produced, that diphtheria and pseudo-membranous croup, are identical diseases, modified by their locality, rapidity of progress, etc. Diphtheria is said to be distinguishable from croup by the presence of albuminuria, but German investigators have shown that albuminuria exists in a distinct proportion of cases of so-called croup. Besides, most croup cases *die* before this symptom can make its appearance. Moreover, all cases of undoubted diphtheria do not present at first, or at any time, those profound alterations of the blood and the kidney lesions which result in albuminuria.

Finally, whether the diseases are identical or not, clinically it was generally impossible to distinguish them at the time of operation. I may refer to a series of cases in my own practice, which would have been decided by any member present as typical cases of true croup, which yet, by their subsequent course—even diphtheritic paralysis—or their marked contagiousness, proved to be undoubtedly diphtheria. The difference in character of the false membrane in the pharynx, larynx and trachea, seems to be relied upon by some of the speakers as a proof of the essential difference of the two diseases. Precisely similar conditions are found in undoubted diphtheria, and are explainable on anatomical grounds, so that the membrane of croup, and the membrane found in the trachea in undoubted diphtheria, are identical in appearance, etc., being in the substance of the mucous membrane *in the pharynx*, but upon its surface in the trachea. There are many other similarities, but time does not permit them to be referred to.

As to when to operate, croup cases are divisible into two groups, viz.: Those in which the dyspnœa is subject to violent exacerbations, but is slight during the intermission; and those which steadily increase, each paroxysm being succeeded by a relative intermission only, the dyspnœa steadily increasing. In the first class of cases, the patient may, it is true, die in an access of dyspnœa, but there is time to try medical measures usually. In the second class, when there is marked depression of the epigastrium and base of the chest, and also of the episternal and supraclavicular fossæ, despite the persistent use of the admirable treatment suggested by Dr. Cohen, operate at once.

Personally, I prefer to operate without either, although it was harder for the operator, unless the patient had become insensible from carbonic-acid poisoning.

The fenestræ generally found in the tubes, I regard as ridiculous. They are generally to be found outside the trachea when the tube is in place.

There should be no hurry in doing tracheotomy. Both hurry and force are exceedingly dangerous, and kill the patient sometimes. A hurried operator may force down the membrane before the tube; the trachea, being more resistant, may be cut, while the membrane will give before the knife, if the latter has been dulled. Some form of dilution had had better be used to permit the removal of loose membrane, etc.

[Subsequently, Dr. Nancrede said, in answer to Dr. Stewart: I am aware that diphtheria is a disease of asthenic character, but I deny that it always commences as such, especially in the larynx, and inquiry will often develop the fact that there has been an attack of pharyngeal diphtheria precedent to croup.]

Dr. W. S. Stewart: I have been very much interested in hearing the discussion this evening. I remember hearing a paper read before this Society some time ago, in which the necessity of early operation in croup was urged. But the reader of that paper, when interrogated as to his success in his operation, had not had one recovery. In the paper of this evening, there is a large proportion of recoveries. The contrast between the two papers, reminds me of a little experience when I went with a brother physician, who had a subject, as he thought, necessitating an operation as a dernier resort for croup; when the parent of the child refused to permit the operation, as soon as the arrangements would be made; and so fickel-minded was he, that three unsuccessful attempts were made to perform tracheotomy during an interval of two days, and still the child recovered without the operation. The difficult problem to solve is, the mortality that would result from not operating, and the actual lives saved by operating.

I have no hesitation in maintaining that croup and diphtheria are distinct diseases.

I confess I have not had the experience of the last speaker in seeing a case of diphtheria develop and terminate fatally in a few hours. And I could not account for such results, except in the fact of its being an insidious development, and in its asthenic nature giving no special symptoms for a certain interval of time at first, except the feeling of languor and an unaccountable sensation of lassitude. Croup, on the other hand, is an asthenic disease; is ushered in suddenly, and is always accompanied by a cough of peculiar and characteristic sound. The membrane of croup is lighter in color than diphtheria—lies more on the surface of the fauces and trachea, and is more readily expelled by coughing; whilst the germs which enter into the formation of the diphtheritic membrane imbed themselves into the tissue, and are of dusky hue, and with greater difficulty removed, and is not accompanied by a cough.

Dr. Jas. F. Stone: There is one point that I would like to emphasize, and that is, the vital importance of attending the patient carefully after the operation. I am one of those who believe in the necessity and very great advantage of this operation, and in its early performance; and yet I do not believe it should be performed, unless the physician will devote a proper proportion of his time to the after-treatment. When we consider that the operation is of a character that does not relieve the physician of the responsibility, but even makes it greater, we should be willing to devote days, and possibly weeks, to its proper performance.

Dr. Sajous: In a case which I saw to-day, operated upon by myself two weeks ago, I noticed that a peculiar odor accompanied each expiration, and upon examination found a spot of ulceration just opposite the fenestra (this being rather low down near the tracheal aperture of the instrument), upon the posterior wall of the trachea. I consider the fenestra as useless. The distance between the tube in situ and the wall of the trachea, is sufficient for the passage of air, and when the voice can be used, the tube does not offer enough interference to prevent the formation of the voice.

Dr. Formad: As to the misconception between croup and diphtheria; some gentlemen have expressed an opinion that there are different pathological processes in the two. Pathologists never asserted that the two diseases are clinically identical, but only that the pathological process is identical. If the product is different, it depends on the locality affected. We may have a urethritis or a cystitis; the diseases are different, and the symptoms different, but the pathological process is identical. It is nowhere said, in text-books of pathological anatomy, that croup and diphtheria are clinically, or even anatomically, the same.

In diphtheritic angina, the deposit is deeply seated, because the inflamatory exudate can not get outside, on account of the anatomical construction of the mucous membrane of the pharynx. In the larynx and trachea, the exudate can not stay below, it being expelled by the elastic tissue of the mucous membrane, which, moreover, has but one layer of an easily permeable epithelium. The exudate is bound to get out as soon as formed. We may have similar exudates in any surface of the body; in each case the deposits differing with the local conditions. Virchow has well expressed these differences: Diphtheria is "Eine Einlagerung," croup is "Eine Auflagerung," of the exudate.

In croup, the absence of constitutional symptoms is easily explained. While in diphtheric angina, the deposit is imbedded into tissues, rich in lymphatics and blood-vessels, and death ensues usually from absorption of septic materials; in croup, the deposit lies on the outside of the body; death may ensue from stenosis of the larynx or trachea, but not from absorption of septic materials, as there are but few blood-vessels and lymphatics in this situation. The anatomical difference fully justifies a clinical differentiation. The deposit of the exudate is like a nail, which may lie on the table or may be driven into the wood. The nail is the same in each case, but is under different conditions and has different effects.

Dr. Crandall, in closing the discussion, said: Dr Cohen, has referred to Dr. Jacobi's low percentage of cures latterly. Dr. Jacobi doubtless operated as scientifically and skillfully in his later as in former cases. So also does Dr. Levis. Yet he reports many failures. I do not lay claim to great scientific accuracy, but wish to demonstrate the importance of after-treatment. The children averaged from three to four years of age, and this made it easier of performance in the cases given. I saw one of these cases every two hours, the other every four or five hours, and believe success due to this. I also believe that physicians should be able to perform this operation whenever called upon. I am under many obligations to those who have assisted me, this evening, in establishing the differential characters of these diseases.

Translations from Our Foreign Exchanges.

Translated for MEDICAL NEWS, from the French by Dr. Illowy, Cincinnati, Ohio.

French Association for the Advancement of Science, in Session at Blois (France).

ALKALOIDS OF QUEBRACHO.

Dr. Dontrebenk presented a report of Drs. Hucberd and Ch. Sloy, "*on the antithermic action of the alkaloids of Quebracho.*" These alkoloids are very numerous; at present, not less than six are known. Series of experiments on rabbits have demonstrated very clearly and precisely the antithermic action of these various alkoloids, and have induced them to experiment with them on man. In a certain number of cases of typhoid fever, in which quinine was ineffectual in reducing temperature, they obtained a marked reduction in consequence of the subcutaneous injections of muriate of aspidospernime in the dose of 10 to 20 centigrammes. They are of the opinion that the last mentioned dose should never be surpassed. They insist upon the rapidity with which the last mentioned dose brings about a reduction of the temperature, and the changes which these agents induce in the blood, which takes on a coloration similar to that observed in poisoning by oxide of carbon.

RESEARCHES ON THE ARTERIAL BLOOD PRESSURE IN AORTIC INSUFFICIENCY IN MAN AND ANIMALS.

Drs. Potain and Francon Franck, report the results of their researches *"on the arterial blood pressure in aortic insufficiency in man and animals."*

Dr. Potain. It is generally admitted that in aortic insufficiency, the symptoms observed are related to a diminution of the blood pressure; the sphygmographic traces evidently support such a view; but the sphygmograph, which furnishes us with precious instructions as to the amplitude of the pulse, is impotent to instruct us as to the true measure of blood pressure. Dr. Potain presents a series of traces taken almost at the same moment on the same patient, which, nevertheless, present very considerable variations. It is readily conceived that this instrument can only indicate the rapport existing between the force of propulsion of the heart and the peripheral resistance; of the absolute force of propulsion of the heart it can give no certain indication. Therefore other instruments have been invented for this purpose. Dr. Potain recalls the attempts of Bach in this direction, and presents an instrument contrived by himself to measure this blood pressure; this instrument is constituted by a rubber bulb, furnished with a tube of the same material, which attaches it to a metal manometre with a registering dial. The orator explains how this instrument should be used; one must become somewhat accustomed to it to handle it properly; but we learn very soon and without difficulty, to make proper use of it. If it has not the exactness of an instrument of precision, it nevertheless furnishes indications sufficiently correct. By the aid of this instrument, the speaker has studied the blood pressure in fifteen patients with aortic insufficiency, simple or complicated, and he has assured himself of the fact, that in the uncomplicated form the pressure is at least equal to, and often greater than, the normal pressure. The normal pressure being 16 centimetres, the pressure in insufficiency varies from 16 to 25. In a single patient, the pressure was slightly below the normal; but this patient was at the same time phthisical, and there existed probably in him an alteration of the myocardium. When the insufficiency is not simple, the pressure may fall below the normal. Under these conditions, the older teachings, which explained all the symptoms of aortic insufficiency by a lowering of the blood pressure, should be abandoned. Therapeutics receive a contre-coup from these new facts; many dietetic means, theoretically cast aside in the treatment of aortic insufficiency, may henceforth take their proper place therein, and digitalis should either be entirely abandoned, or only employed with the greatest precaution and reserve. These facts show, moreover, that in cases of this kind, the vascular lesion itself, is of less importance than the manner in which it and its effects are borne at the periphery.

Dr. Potain now yields the floor to his learned collaborator, who gives an account of his physiological experiment by which he has controlled or interpreted the teachings of clinical experience. Dr Franck states that the verification of such a paradoxical fact as the existence of a high blood pressure in aortic insufficiency, is calculated to awake an ardent desire for an explanation. He sought to, and succeeded in producing in animals artificial lesions of the valves of the aorta, and each time he found and verified an increase in the energy of the heart and in the number of its pulsations. The orator indicated the ingenious means he employed, guarding against all errors to verify the augmentation of the energy of the contractions of the heart, and the reaction of the peripheral circulation. In seeking for the reasons of this double reaction, the great influence of the irritation produced at the level of the aortic valves, must not be forgotten, just as in aortitis, the irritation, seated at another level, exercises a very great influence. Dr. Franck applied himself, moreover, to discover what conditions are necessary for the proper maintenance of the normal pressure in aortic insufficiency; the conditions are two in number, 1st, augmentation of cardiac energy; 2d, diminution of peripheral flow; this last condition is realized by the contraction of the peripheral vessels. These two conditions, the necessity of which was demonstrated by means of a schematic apparatus in rubber, are realized precisely in man in aortic insufficiency; the energy of the heart augments, the peripheral vessels contract, and the double mode of compensation indicated by experimentation is found verified clinically; the two methods perfect each other. And in reflecting well upon this subject, it will be found that there is not a phenomenon of aortic insufficiency that can not be as well explained upon the theory of a high pressure as upon that of a low one.

Selections.

New Treatment of Ulcer of the Stomach.

SIMPLE ulcer of the stomach, the ulcer of J. Cruveilhier, which is often called the round ulcer, is one of the most rebellious affections to therapeutic measures. Why is it that this *simple* ulcer, as it is called, persists for months and years without cicatrizing? What cause presides over the formation of the ulcer? and what influences preside over its development, its chronic course? If one wishes to give to these questions a truly scientific solution, he is obliged to acknowledge that there is something connected with its origin and course which is still unknown. The theories of thrombosis, embolism, and of inflammation, if they explain the losses of substance, and the ulcerations of the mucous membrane, do not explain the form and characters of the round ulcer. So far as the action of gastric juice is concerned, if it contributes to the progress and extension of the ulcer by a sort of digestion, why is this digestion limited so often, and not cause perforation and destruction of the stomach. It would seem that the acid reaction of the gastric fluids has a bad effect, since so much good has been done by alkalines and Vichy water.

The treatment of these ulcers is a more simple matter than the pathogenesis. The beneficial effects of strict diet have long been recognized, especially of the milk diet. But there are serious objections to the milk treatment. A person with ulcer of the stomach should take, if put on the milk diet exclusively, three or four quarts of milk every day. This enormous quantity may be well tolerated, and the gastric pains, the vomiting and hemorrhages may cease. But one can not with impunity introduce into a sound stomach, much less into one in bad condition, four quarts of liquid a day, without causing dilatation of the stomach. Without doubt, this can be in a manner obviated, if the patients be not allowed to take much milk at a time. But the morbid state and atony of the stomach make digestion more slow and difficult. If to this we add the fact, that dilatation of the stomach may cause hemorrhage and perforation of the ulcers, it is easily seen that the milk diet may be a source of great danger.

For a long time M. Debove has paid special attention to means for reducing the quantity of milk ingested. For this purpose he has used concentrated milk and powders of milk, representing in small volume considerable quantities of milk. But these have not the nutritive value which is found in meat powders. It has been objected to M. Debove's theory, that the dilatation of the stomach, which he attributes to the quantity of the ingesta, is due to the affection itself, to the ulcer of the stomach. But, as Bouchard has seen, who has for a long time recommended a dry diet for dilatation of the stomach, and as Debove has also seen, the dilatation disappears under the influence of this regime alone, so that it can not be due to the ulcer.

The dry diet of M. Bouchard, consists in the administration of food very finely divided, or very divisible, as powdered meat or cheese, and at the same time very nutritive. While the amount of dry food is reduced, only a minimum quantity of liquid is allowed, about a pint of water, or wine and water, in twenty-four hours. On this diet the stomach is never distended by food, and the dilatation diminishes or disappears. It is by this dry diet that M. Debove treats ulcer of the stomach; but he adds an important factor to it. Before commencing treatment he washes out the stomach, in order to clear away the mucus, and the *debris* of food which may be there. This washing is done with a rubber tube by the physician himself, as a little carelessness in its use might cause hemorrhage. Duguet has reported a fatal case of hematemesis, caused by the patient attempting to use the tube himself. Debove has never had a case of hemorrhage attributable to the use of the tube, but he very justly remarks that hemorrhages are quite frequently in ulcer of the stomach, and that when the tube brings up "coffee-grounds" blood, it can not be said the hemorrhage was caused by the washing. If, however, during the washing the liquid brought up has a rosy tint, the operation should be at once suspended.

M. Debove believes that if gastric digestion and the action of the gastric juice can be suspended for some time, the cure of the ulcer will be greatly favored. By rendering the gastric juice alkaline, its digestive properties are taken away, and the transformations of albuminoid substances into peptones is stopped. In this manner the matters undigested by the stomach pass into the intestines with an alkaline reaction very favorable to intestinal digestion. Debove has obtained effects which lead him to believe that he can make a patient take ʒvij of bicarbonate of soda, in three doses, in twenty-four hours. He has shown by his washings of the stomach, that under the influence of his treatment, the stomach liquids were never acid, and contained no peptones. The patients were given ʒvjss of meat powder, and ʒijss of bicarbonate of soda, three times a day. This mixture not being very agreeable to the taste, is introduced into the stomach through the tube. To this diet, which represents ʒlxx of meat and ʒvijss of bicarbonate of soda a day, is added a quart of milk, taken in small quantities during the day.

The *alkaline cachexia*, which Trousseau and other physicians have spoken of, was seen in none of Debove's patients. This treatment has given most excellent results,—results which have never been attained by any other method of treatment.—*Le Progres Med.*

Case of Supra-Pubic Lithotomy in a Woman—An Exceptional Case.

BY LAWSON TAIT, F. R. C. S.,

Surgeon to the Birmingham and Midland Hospital for Women; Consulting Surgeon to the West Bromwich Hospital.

J. M., æt. 24, was confined in September, 1881, being attended by an irregular practitioner, after a labor of about ninety hours. She came under my care in January, 1882, at the Hospital for Women, as an out-patient, and I found that the whole of the posterior wall of the bladder had been destroyed, leaving only a fragment of the trigone and the urethra. A large amount of the posterior wall of the vagina had also been destroyed. I admitted her, and by a series of plastic operations, seven in number, and consisting chiefly of bringing flaps from the posterior and lateral parts of the vagina, I managed to build up a new posterior wall for her bladder, and to fasten it to the stump of the trigone. I had to turn the remains of the cervix uteri into the bladder, and when the recovery was complete there was very little vagina, and menstruation occurred into the bladder. That viscus, however, in the course of a few months became large enough to contain nearly eight ounces of urine, and it was completely under her control as long as its contents did not exceed that amount. Her existence, therefore, became one of comparative comfort, and remained so until she had to accompany her husband, a soldier, to Ireland. She came back to me in March of this year with symptoms of stone in the bladder, and I easily found and crushed a large stone with great but not with complete relief. After several soundings I found another stone (possibly a fragment of the first) in the posterior and upper part of the bladder. I could only touch it occasionally in certain positions, and I could not lay hold of it with the lithotrite, though I tried many times. I became certain, therefore, that it was lodged in a pocket made, in all probability, by the puckering of my artificial work in closing her bladder. The question came, how was I to get at it? Vaginal lithotomy was out of the question, as I must of necessity undo all my old success. Dilating the urethra I do not like, and if I did it, in this case there was the possibility that even then I might fail to get at the stone in the pocket. I therefore determined to open the bladder from above. I had never performed supra-pubic lithotomy, and I had never heard of its being done in a woman. I have opened the bladder several times unwittingly in removing uterine tumors, fortunately never with any ill result. I have seen supra-pubic lithotomy performed only twice; in both cases the peritoneum was opened, and both patients died. I am not afraid of opening the peritoneum; still I was anxious to avoid doing so, and therefore I kept very close to the pubis, and an assistant pressed the fundus of the bladder up with a sound passed through the urethra. With all my precautions, I did open the peritoneum, and can easily understand how this method of removing stones from the bladder has never become a popular one. I found the stone in a pocket on the left side of the cervix, in such a position that I could not have removed it, at least not easily, if I had passed my finger from the urethra. I closed the wound in the peritoneum very carefully, and passed a drainage tube through the urethra and out at the wound in the base of the bladder. The patient has made an excellent recovery; the supra-pubic wound is now nearly healed, and she passes water without any discomfort. The stone was, as usual, a very soft phosphatic concretion, and was adherent to the wall of the sac in which it is situated.

In such a case as this the tendency to the formation of stone is very great, and in many of my bad cases of vesico-vaginal fistula I have had to do lithotrity at intervals after I had closed the aperture. Lithotrity in women is such a perfectly easy operation that until now no difficulty has arisen; but in this exceptional case I think I adopted the only possible course.—*Medical Press.*

Myoma of the Uterus.

The next subject which Dr. Parvin has submitted for consideration is that of myoma of the uterus. There are two patients outside, but I do not think that it is necessary to bring them in, for you can not see anything, and you can not feel anything. I have examined the patients in the waiting-room. One woman is forty-eight years of age, and does not suffer much from hemorrhage or very much in any way. The tumor is hard, shriveled, and solid, and thus it is placed in the category of cases in which nature has cured the disease. In all probability, nature will not remove the tumor, but nature has relieved the symptoms and so diminished the size of the tumor by shrinkage that nothing more will be required. The other patient is forty years of age. She has had only two hemorrhages, and it is very likely that she can be tided over the climacteric without any surgical interference. Usually, we do not operate on women for fibroma after the age of forty-six or forty-seven, unless it is perfectly clear that the use of ergot, combined with absolute rest, is sufficient to tide her over the climacteric. When, however, the disease appears in young women, say from thirty-five to forty, or as I have seen it in a girl of nineteen, an important question comes up for careful discussion, and here again the patient must accept a good deal of responsibility in the answer. If a patient spends one week of every month in bleeding and suffering pain, becoming anæmic, restless and irritable, unable to look after her affairs, and you can not relieve the sufferings or arrest the hemorrhage except by operation, then this question must be considered. Is it worth while for that patient to go on suffering for a series of years, when by an operation, the mortality of which is only four or five per cent., she could be relieved? On this point different men will express different opinions. If I were the patient, I should have the operation done. Holding that opinion, I advise the patient to have the operation performed.

Concerning myoma of the uterus, we have a number of traditions which are being rapidly destroyed. One tradition is that myoma is not a serious thing. We have been in the habit of finding, at our post-mortem examinations, a large number of myomata which have never given any trouble, but I need not say that the tumors which do not give rise to trouble, are not the ones which trouble us. The tumors which cause trouble are the ones which we see. If a tumor gives rise to hemorrhage and pain, the woman consults a physician, who recognizes its presence.

There is another tradition, that the occurrence of the climacteric arrests the growth of the uterine myomata. It is now perfectly clear that a certain class of uterine myoma arrests the progress of the climacteric. Frequently we find women going on for years after the usual time of the climacteric, without any appearance of diminution in the size of the tumor, or in any amount of the hemorrhage. There is a peculiar kind of uterine myoma which causes but little pain or hemorrhage, but which goes on indefinitely, increasing in size and seems to be unaffected by the climacteric.

In uterine myoma, provided the use of ergot and rest does not give relief, one of two procedures may be adopted. The uterine appendages may be removed, and menstruation, which seems to be the immediate process by which the growth is encouraged, arrested. It is a fact established beyond discussion that in the great majority of cases operated on hemorrhage is immediately arrested, and the tumor shrivels up, and may disappear. The removal of the uterine appendages is an operation to be recommended in a certain class of cases. In some cases in which the disease is not arrested by the removal of the uterine appendages, there is the far more dangerous operation of removal of the entire uterus or hysterectomy.—DR. LAWSON TAIT.

On the Etiology and Treatment of Albuminuria.

[Read in the Section of Medicine at the Annual Meeting of the British Medical Association in Belfast, by W. R. Thomas, M. D., M. R. C. P., Physician to the Public Hospital, Sheffield; Lecturer on Medicine, Sheffield Medical School.]

I believe that all, or at all events, nearly all the cases of Bright's disease that we meet with, whether acute or chronic, are brought on by the excessive work which the kidneys have to perform. Here we meet with a case which has followed scarlet fever, and there another brought on by cold, but in all cases, I believe the actual cause is the vast amount of matter which has to be excreted by these organs.

We find that acute albuminuria is generally brought on by or follows some acute disease, as for instance, scarlet fever, erysipelas, etc. Now we know whenever there is fever there is a vast amount of waste going on, and a good deal of effete material, which I need not name, has to be thrown off. In every case of fever or acute disease, the urine is invariably of a high specific gravity, the quantity of solids excreted by the kidneys in twenty-four hours is always very much increased-evident proof that excessive work has to be performed by them. I believe that it is the excessive work which is thrown upon them suddenly, which is the cause of acute inflammation.

Cold.—A severe cold, also, by suddenly putting a stop to the action of the skin, very frequently brings on an acute attack in the same way. We know very well that the skin and kidneys are functionally nearly mated, and that when excessive work has to be performed by the one, a diminished amount has to be done by the other. We frequently find, that during the course of these fevers not only have we the high specific gravity and the presence of a large quantity of salts, but also albumen. I have over and over again examined the urine when patients have come to me who have caught severe cold, and have generally found the same excess of salts, and often, too, albumen. Chronic Bright's disease is generally produced, I believe, by a combination of the several causes. For the present I shall, with your permission, consider each cause separately.

Alcoholism.—I believe alcoholism has more to do with the production of Bright's disease than we give it credit for. I do not mean the taking of alcohol in large quantities, but that constant and regular taking of it which is such a common custom. We so frequently meet with Bright's disease among very steady hard-working men among all classes that we are apt to lose sight of the fact. Because no excess has ever been noticed on the part of the patient, we close our eyes to the fact that many such steady-going men drink their two or three glasses of whisky at night, their two glasses of sherry for luncheon, and two more perhaps for dinner. In addition to this they sometimes take more during the course of the day, especially if they are business men. There are many men who can take their six glasses of something a day for years—yes, for a lifetime—without appearing to suffer in any way, thanks to the healthy organs which have been given to them, and which are day by day working hard to throw this off; but generally the day of reckoning comes sooner or later, often rather late in life. If we see such patients early for other ailments, we find that they complain of a desire to get up in the night to micturate, and alcohol may often be found in the urine. This desire I have always found a valuable premonitory symptom, present when hardly any others were, and whenever I found it I have generally examined the urine and found frequently albumen also; but the appearance of the latter is generally intermittent, dependent, I believe, upon the taking in of a more than usual quantity of alcohol the day before. These patients complain of frontal headache, confusion of intellect, and feeling of fullness in the head. The sight is impaired. They have a catarrhal condition of the pharynx, larynx and nose, and are constantly hawking and perhaps coughing. They also have symptoms of dyspepsia, such as flatulence and sickness.

I do not think that we, as medical men, sufficiently acknowledge or believe the fact that the regular drinking of alcohol in what is considered small quantities, two or three times a day, by steady men, tends to produce this disease in the perhaps far future. I have taken particular notice of these cases for twenty years, and firmly believe that this is a most important cause. Many of these patients, probably the majority, have been hard-working and steady men, but for twenty or thirty years they have been in the habit of taking what they have considered a moderate amount of stimulants. They have never felt the slightest inconvenience while actively engaged in business, but now the time has come for them to stand aside and let other and younger men, their sons perhaps, do the work they used to do; they partly or entirely give up working, but they continue to take the same amount of stimulants as before. The result is that they suffer, their kidneys become blocked up, and dropsy at last supervenes. I often think we are not plain-spoken enough with such patients. Finding that these men evidently enjoy their glass and their cigar, knowing well that they have worked hard for many years, we hardly, out of pity, like to deprive them of these little pleasures, and so we allow them to court death slowly and surely. I think it is our duty in such cases to explain most explicitly how this habit is acting injuriously, and often I have found, that when

I have honestly told the patient the danger he is in, I have got him to give it up.

These men are frequently the most intelligent with whom we ever come into contact; great thinkers and writers, who work themselves to death, and then take a little stimulant when weary; they think, they smoke, they drink, and take no exercise, and of course the result must be premature death from some disease. The excessive mental work, with its consequent excessive excretion of phosphates and the taking in of alcohol, assisted day by day by the depressing poison, nicotine, tell their tale. We find that not only renal disease comes on, but also there is early decay of mental powers.

Mental Worry and Overwork.—There are other great causes which tend to produce a large number of these cases, and these are mental worry and overwork. How often we find this disease attacks the man of business who has for years been struggling hard with fate and has at last been unsuccessful. The professional man, whose cares and pecuniary difficulties, be he lawyer or doctor, have steadily told upon his health for years, or the widow left in genteel poverty with a number of children to bring up, and but little wherewith to do that. If we, as we walk through the world, think of this fact, we shall find, if we carefully examine such cases long before evident symptoms show themselves, that the urine is daily loaded with phosphates, the products of mental waste from worry and care, and with oxalates from dyspepsia. We invariably find, that when such products are found in the urine regularly, certain symptoms are complained of, as headache, dyspepsia, irritability, frequent micturition, showing plainly the state of affairs. According to my experience, mental worry or overwork is, if long continued, nearly always accompanied by the presence of some or all the materials I have mentioned in the urine; by some of the symptoms I have mentioned, with others I have not named, and followed by albuminuria with its accompaniments, unless the patient is carried off by other complaints. When we meet with such cases, it is, I believe, our duty to speak out and tell the patient what the actual cause of the disease is, and to remove the cause if possible; if need be, to call in the aid of the family legal adviser or of a trusted friend to recommend a remedy; to do anything to cure our patient. If we do this we shall often have the satisfaction of finding our patient recover, surrounded perhaps by fewer of the luxuries of the past, but irritated not at all by the anxieties which in the past for years had rendered life miserable. I believe, in these cases, the ascertaining and the removal of the cause to be of far more importance than the medicinal treatment, which by itself is of little avail.

Excessive Eating.—I have seen many cases of albuminuria where I believe excessive eating has had much to do with the production of the disease. Such men are strong, florid, corpulent men. They drink a good deal, but some are abstemious. The urine is generally found full of urates month after month and year after year. At last albumen appears, and all the ordinary symptoms of Bright's disease follow. I have in my time treated a large number of such cases, where I believe the treatment recommended has warded off the disease, and other cases I have seen go from bad to worse.

Skin.—Among the lower classes, owing to the absence of a bath in the house, I find that the skin is an organ sadly neglected. In hospital practice, when patients have to strip for examination, we seldom meet with the skin in a presentable state. The pores are generally completely blocked up. If the urine be examined, we find that it is loaded with salts and high specific gravity, but if the skin be well sponged on alternate days, even for a fortnight, while the patient is under observation, a great difference will be seen in the specific gravity. I believe that want of cleanliness amongst the poorer classes is a great factor in the production of this disease. The kidneys have to excrete more than what they were ever intended to do, and that for a number of years. We all know how we feel the loss of our morning-bath, if from some cause we are prevented from having one. It is not the shock alone which does the good, but the throwing off by the skin what tends to injure if allowed to remain in the system. Patients have an impression that, unless they can have a bath, it is impossible to keep the skin clean, yet every working man and woman may enjoy the luxury of having an unblocked and secreting skin. Daily rapid sponging every morning in the bedroom, or, if the patient be delicate, in front of a kitchen fire, followed by a good rub all over with a rough towel, is as efficacious a method of removing dirt as any man need practice, and places the working man, as far as a bath is concerned, on an equality with the nobleman. Let any man try it for a month, and then he will find that he will not feel inclined to go without it, but will look upon it as a luxury.

Lead.—Patients who has much to do with lead are very apt to suffer as we all know, from Bright's disease. If the urine is examined, lead will be found in it. The kidneys have to excrete a large quantity of lead every day, in addition to the ordinary constituents of urine. They are willing organs, which perform their work efficiently for years, but at last fail. In such cases treatment without removal of the cause is of but little avail.

The New York Academy for Medicine.

Stated Meeting, October 2, 1884, Dr. Fordyce Barker, M. D., LL. D., President, in the Chair.

Dr. F. H. Bosworth read a paper on "The Three Tonsils—Some Practical Suggestions in Regard to Their Structure, Function and Diseases."

The President called upon several gentlemen, not specialists in diseases of the throat, to discuss the paper, because of their experience with certain points contained in it. He first said, with regard to his use of the bicarbonate of soda in quinsy, mentioned by the author, that he had been in the habit of seeing a few cases of this disease each year, and until some years ago they almost invariably ended in suppuration; but since he had begun the local application of bicarbonate of soda, in not a few of the cases the disease was aborted. A marked instance of the kind occurred in a patient seen with Dr. Bosworth, a gentleman of eminence in literature, who was suffering greatly from threatening abscess. The next morning after the use of the remedy he was found at the breakfast table.

Dr. Douglas would agree with the author on most points, but there were a few to which he must take exception. He would agree with him, for example, that quinsy was a manifestation of rheumatism, or especially of gout, and the treatment which he had employed for this affection was largely that used by the President—namely, bicarbonate of soda. At the same time he gave the ordinary remedies against gout. He had found the gargle and spray of bicarbonate of soda also useful in cases of enlarged tonsil, but one of the most beneficial remedies for this class of cases was a powder composed of one part of menthol to a hundred parts of sugar of milk. He would not always resort to the knife for the removal of the enlarged tonsil; it could be slowly but surely reduced in size by the persistent use of a powder composed of salt, camphor, ammonia and sugar of milk.

Dr. F. H. Hamilton was inclined to agree with Dr. Bosworth that the enlarged tonsil should be removed by the knife, yet he had often observed that the enlarged tonsil of childhood disappeared before the twentieth year. He supposed the author, when he said there was no danger connected with the operation, meant not in the acute or engorged state, and not in those of the hemorrhagic diathesis. The question had been raised whether all or only a part of the tonsil should be removed; he should say all that the knife would include.

Dr. Jacobi believed that the only efficient treatment for the enlarged tonsil was removal; applications would not reduce its size. and where they had apparently done so, the reduction was due to some other cause. The enlarged tonsil might remain stationary and appear smaller after the lapse of years, because of the growth of the fauces. As to the danger of hemorrhage, there usually was but little loss of blood, but it might be profuse from cutting into the soft palate—an accident which could not always be avoided. The most efficient means for stopping hemorrhage when it occurred was digital compression, applied, perhaps, for an hour or more. He could not agree with the author's view that follicular tonsillitis was an essential fever; he looked upon it as a local disease. What Dr. Bosworth took to be an essential fever was probably diphtheria, for cases of diphtheria were often overlooked or mistaken for some other affection. It was a great mistake to suppose that every patient sick with diphtheria must necessarily die; there were many mild cases which went unrecognized, and which were all the more dangerous for that reason, as they were the more likely to spread the disease. Dr. Jacobi laid particular stress on this point, because of its importance to the public health.

Dr. Weber had not yet seen a case which went to substantiate the view that a phlegmonous inflammation around the tonsils was due to the gouty habit. He had found it most frequently in patients of poor general health.

The President remarked that guaiacum had once been strongly recommended in the treatment of quinsy on account of the supposed gouty origin of the affection; but he had not obtained the results with it which he had been led to anticipate from reading certain articles in the medical journals.

Dr. Post thought that the best treatment for the enlarged tonsil was extirpation.

Dr. Hamilton had found the external application of ice or snow the best means for checking hemorrhage after removal of the tonsil.

Dr. Fruitnight had aborted some cases of quinsy by the administration of the tincture of aconite.

Dr. Jarvis again called attention to a distinction which he had made between the soft and hard or indurated enlarged tonsil, the latter being found in the syphilitic. If the scirrhous tonsil were cut, it would surely give rise to hemorrhage, and might result fatally. He employed the knife in the removal of the soft enlarged tonsil and the cautery or snare in the removal of the indurated tonsil. He did not think any more of the tonsil should be removed than was necessary, for it doubtless served some physiological purpose, as the lubricating of the fauces and protecting the carotid artery.

Dr. Brandeis said he believed in the Darwinian theory of the survival of the fittest; the tonsils had survived some thousand years, had fulfilled some physiological purpose, and doubted not that they performed their function well, whatever it might be. But the tonsils, like other structures, were liable to disease, and diseased tonsils might be worse than no tonsils at all, and therefore he believed they should in proper cases be extirpated. He then pointed out the advantages of the tonsillitome over the knife in certain cases. Contrary to the experience of Dr. Bosworth, he had found hemorrhage in young subjects rather than in the adults, although not extreme. To prevent hemorrhage he allowed the patient to sip a solution of tannic acid, and, if necessary, he applied pressure. Dr. Bosworth's description of quinsy corresponded with that in Ziemssen's Encyclopædia, there called peritonsillitis, but Dr. Brandeis could not accept the view that it was always an inflammation of the peritonsular sheath. He recommended aconite and the ammoniated tincture of guaiacum in its treatment until an abscess should have formed.

Dr. Corning had arrested a severe hemorrhage after tonsillotomy in one case by the use of his carotid compressor.

Dr. Bosworth, in closing the discussion, said, with regard to the possibillity of reducing the size of the tonsil by astringents, that he believed it could not be done. Their size, however, might be reduced in the young, in whom they were in a state of chronic inflammation, by the new tissue undergoing contracture. This would account for the diminished size of the tonsils on reaching adult life. As to hemorrhage in the young, it was only an oozing; considerable hemorrhage only occurred in the adult. That tonsillotomy was not dangerous, was apparent from the fact that in all medical literature not a single fatal case was recorded. The cases in which the carotid artery had been wounded were excepted; this accident could never occur in the hands of a surgeon. In arresting hemorrhage with the actual cautery, the iron should be applied from above downward, that it might not be cooled by the flow of blood before coming in contact with the bleeding vessel. He regarded peritonsillitis a very good name for quinsy, but he did not believe there was a peritonsular capsule proper. As to the tonsils performing their function, he did not think they existed in the normal state, but that they were the result of disease.

The Academy then adjourned.—*Medical Record.*

The New Local Anæsthetic, Hydrochlorate of Cocaine—Experiments With Caffeine.

BY R. A. REEVE, B. A., M. D.
Senior Opthalmic and Aural Surgeon, Toronto General Hospital—President, Toronto Medical Society, etc.

It is not surprising that the virtues of a drug which is at once absolutely non-irritant and equally anæsthetic to the urethra and conjunctiva, the cornea and drum-head, and the mucous membranes of the larynx, naso-pharynx, vagina, etc., should be promptly and widely tested and heralded. The various indications it fulfills will be so apparent as hardly to need specifying. The following cases illustrate in part its potency, and one is cited, not without interest, in which it proved useless. The solution used was of four per cent. strength, the two per cent. having been found too weak, as a rule, for operations upon the eye.

Case 1.—J. A. Toronto General Hospital, Iridectomy, Nov. 11th. Four applications in fifteen minutes; operation begun five minutes after the last; no pain,—"just felt the doctor was doing something."

Case 2.—J. T. T. Sclerotomy for secondary glaucoma—drug useless. Six instillations (of several drops) in twenty-five minutes; operation attempted five minutes later, but patient not tolerating the use of knife or forceps, chloroform had to be used. The patient was a very nervous subject, and there was possibly idiosyncrasy in addition to evident hyperæsthesia.

CASE 3.—Mrs. McC. *Operation for secondary cataract;* solution applied three times in ten minutes; discission ten minutes later. The patient, a nervous lady, said she "felt not a bit of pain."

CASE 4.—Mrs. T. *Mucocele; Bowman's operation:* three applications on punctum and inwards; canaliculus slit as far as caruncle without pain, and into sac with but little; pupil moderately dilated, but contracting to light and on accommodation.

CASE 5.—Mrs. M. *Iridectomy for inflammatory glaucoma:* five installations upon upper margin of cornea in fifteen minutes; five minutes later, section at sclero-corneal junction not felt; solution dropped upon wound holding knuckle of iris; two or three minutes later segment of iris excised. The patient, a delicate, nervous lady, said "she only felt the operation a little."

CASE 6.—M. C. æt. 3½ years: *Staphyloma of cornea:* Fifteen minutes after a single instillation, the cornea was incised, without complaint.

CASE 7.—Mrs. C. The galvano-cautery was applied to several points on the septum and turbinates after the use of the solution, without other discomfort than fleeting neuralgia of superior dental nerves.

CASE 8.—Ulceration of larynx. A two per cent. solution gave marked relief of irritability.

CASE 9.—*Inflammation of auditory meatus.* Solution dropped into ear; tenderness and pain sensibly relieved—"a sort of numbness,"

CASE 10.—E. L., Toronto General Hospital. *Iridectomy.* Five applications in forty minutes; operation ten minutes after the last; section of cornea not felt; the seizure and excision of iris gave some pain.

CASE 11.—F. G. H. *Pterygium.* Four applications; abscission and suturing practically painless.

CASE 12.—N. McL. *Strasbismus.* Four instillations in fifteen minutes; tenotomy five minutes later; moderate pain caused by traction upon muscle with hook, but none in cutting tendon; pupil not dilated in thirty minutes.

Under cocaine extraction of cataract is no more painful than iridectomy; and more frequent droppings or stronger solutions than the four per cent. may be found to anæsthetize the iris—a safer plan apparently than injecting into anterior chamber. Cocaine may be used to prevent (or mitigate) the after pain of operations in various parts and lessen risk of secondary inflammation. It will doubtless prove valuable for relief of pain, photophobia and spasm of orbicularis from corneal irritation, as well as of reflex ills elsewhere of kindred origin. The writer has been disappointed in not finding an eight or ten per cent. solution of the alkaloid itself in oleic acid anæsthetic to the skin; but the aqueous solution of the salt can be utilized hypodermically for local anæsthesia, to some extent at least. In solution or unguents of various strengths, it should allay the pain of burns, etc., and the itching in some skin diseases.

Microscopy.

The American Hog--His Inspection a Necessity; or, Trichina and Public Health.

By T. B. Redding, A. M., Ph. D., F. R. M. S.

In 1881 I examined twenty hogs, and found trichinæ in two, one of them exceedingly full; in 1882 I examined twenty-five, and found but one that contained any of the parasites. Last year I examined, at various times during the year, fifteen, and found one that contained trichinæ; these were hogs that had been killed and were sold on our market. I also, during the past winter, examined the muscles of three hogs that had died and were left on the street a few days. and found trichinæ in each of them in great abundance; they were fed in very dirty pens, and where rats greatly abounded.

These parasites have been found in the flesh of man, the hog, the cats, rats, mice, the hippopotamus and other animals. Two or three years ago, while examining a piece of one of the pectoral muscles of a frog, which had been caught in the branch that carries away the water of our pork-house, I discovered it full of trichinæ. I believe this is the first instance where the parasite has been discovered in the frog. The hippopotamus had been fed offal at the Zoölogical Gardens of New York, and doubtless contracted the parasite in that manner.

Two years ago, a cat, living a my barn, had five kittens. When the kittens were about eight weeks old, the mother sickened and died; about the same time the kittens also became sick, and one after another died. I examined pieces of the muscles of the mother, and each of the kittens, as they died, and in all I found vast multitudes of encysted and encysting trichinæ, and great numbers of free trichinæ in the stomach and intestines. A short time before the mother cat sickened, I found her and her kittens making a meal off a large rat which she had killed, and which was probably the source of infection.

Recently I received a small piece of human muscle from Dr. C. H. Stowell, of the Michigan State University, and editor of the "*Microscope,*" at Ann Arbor, which is very full of parasites. I have a specimen of it here, mounted, ready for examination under the microscope, which contains thirteen encysted trichinæ. If the person, from whom this muscle was taken, was a medium-sized person, and all parts of the voluntary muscles were as full as this, he, or she, must have furnished a home for at least sixty to eighty millions of the parasites.

From all the information derived from my own experience and examinations, and those of others, I am of the opinion that the number of our hogs infected, will vary from two to eight per cent. on an average; that in badly-kept piggeries and lots, in the presence of rats and other vermin, the per cent. is largely increased; but where hogs are kept in large, clean places, away from buildings and rats, and where they are not permitted to eat those that die, trichinæ will seldom be found.

Extract from paper read at the Sanitary Convention, held at Anderson, Ind., April 24th, 1884.

The Germ Origin of Disease.

THE following is a portion of an article by Dr. W. S. Newton, in the *Peoria Medical Monthly:*

When a disease has a germ origin, it presents to us in its course some of the traits or phenomonea of organic life, animal or floral.

Let us name a few of those phenomena, and then apply them to our common diseases:

1st. Animals and plants are so nearly similar that what fact will apply to one, applies to the other also. An egg of an animal and a seed of a plant are similar structures and the beginning of all organic life. After life is originated, in many cases it may be propagated by buds. To start life from seeds and eggs, they must be submitted to either germination or incubation and consequent fermentation.

2d. Germination or incubation puts in motion a force called fermentation or zymosis. No organic body can decay and rot without fermentation. Flesh, fruit, and all organic bodies would never decay if millions of germs did not incubate in every fibre and atom and set up fermentation and consequent decay.

The tooth of oxygen may eat iron and nearly all metals without germ life, but when organic bodies decay, incubation or germination starts the process. In some countries meat is elevated in the air above germ life, and this saves it from putrefaction even when the days are hot. Fruit is sealed in cans not to keep out air, but germ life. *In any disease, then, where there is putrefaction and fermentation or zymosis, there is abundant germ life for a cause.*

3d. There are floral and zoölogical zones around the earth running with the equator or parallels, and each zone has its peculiar flora and fauna. If the elephant and other phenomenal animals and plants live in such zones, microscopic animals and plants causing disease will do so also.

4th. Some plants and animals flourish in certain regions—in swamps, in valleys dark and cold—and some are marine or aquatic and some inhabit sandy plains. When germs of this kind cause disease, we call the malady endemic.

5th. Animals can travel with the wind and against it. Plants are carried by streams and the wind and by animals, and never against the wind.

6th. Plants grow in the warm days of summer, rest in winter, and with the spring revive again. Insects also live in the summer.

7th. Animals may be entozoal and live in the dark, true parasites, but plants can not flourish in the dark. Wood and Gray both say plants must have light for healthy growth. When plants cause disease, we must suppose they grow on the surface of the body in the light. Animal germs may live anywhere in the body, in the dark and in the light.

8th. Animals and plants are not attacked by parasites when in perfect health like when they are sickly and weak.

9th. Certain agents destroy organic life when applied to it. We call these agents antiseptics.

Let us now try some of our common diseases by these traits or forms of organic life, and see whether we can find any similarity.

Typhus and Typhoid Fevers have plantings and growings. Zymotic, zoölogical zone for former. Ansiseptics influence them.

Small-Pox, Scarlatina, Measles and other eruptions—Planting and hatching, travel against the wind; zymotic zones for some of them. Antiseptics influence.

Whooping Cough and Mumps—Planted and incubation, travel against the wind. Spread by germs.

Ague and Intermittent Fever—Planted and germinate. Travel from swamps with wind, flourish in the summer, rest in the winter, start up to life in the spring. Antiseptics influence.

Goitre—Endemic to mountain valleys; affects the weak; is influenced by antiseptics.

Consumption and Scrofula—Seem to grow after planting; afflict the weak; have a zone; affected by antiseptics; grow in the dark; seem to be animal germs causing them.

Cancer and Lupus—Incubated and grow to maturity; may be planted; seem to spread by budding, like protozoans.

Gonorrhœa and Syphilis—Planted seem to incubate and at maturity bear seeds or eggs; affected by antiseptics.

Leprosy and Skin Diseases—Grow in the light; afflict the weak; spread to planting.

Hydrophobia, Snake Bite and Skunk Bite—Grow by planting; seem to be affected by antiseptics; zymotic.

Rheumatism—Flourishes in damp weather; influenced by antiseptics. Said to be zymotic.

Yellow-Fever—Has a zone; flourishes in warm weather like the plants and hexapods.

Erysipelas, Influenza, Puerperal Fever, Typhoid Pneumonia and Putrid Sore Throat—Spread by planting; affected by antiseptics; zymotic.

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High Angles or Low Angles?

We sent two objectives to a young physician who "wanted one that would do the best work for an active physician who had no time to fuss, but plenty of time to spent profitably." One objective was a one-fourth of over a hundred degrees aperture, and the other was a one-fourth of about seventy-five degrees. Our friend returned the one-forth of one hundred degrees, and retained the one of seventy-five. "The one I keep," said he, "has much the better working distance; shows the larger crystals of uric acid better, and defines the smallest oxalates just as well. You do not tell me which you think is the better glass, nor which is worth the more, but for a doctor I am sure I have chosen wisely." But Dr. J. Edwards Smith would tell him, in all probability, that he was not competent to judge, and that after proper education and "eye-training," he would see the error of his ways and would hasten to get a half-inch mortar-objective with Butterfield screw.

Gleanings.

Operative Treatment of Intrathoracic Effusion.—In a prize essay of the London Medical Society by Norman Porrit, the author recommends as point of election for operation, the eighth intercostal space in the posterior axillary line. This point is covered by relatively thin muscular layers. The point is best determined by marking the position of the angle of the scapula when the arm hangs down and when it is raised. These points are joined by a line, and the desired point lies one-inch directly below the centre of this line.

Porrit does not consider the admission of air into the pleural cavity as dangerous, but advises that it be avoided, if possible. In making the puncture with nothing but a trocar and a rubber drainage tube, the introduction of air can be avoided by slipping the tube over the canula, and then thrusting the stilet through the rubber into the canula. After the thorax is perforated, the stilet is withdrawn and the small opening in the tubing made by the stilet immediately closes up; the end of the tubing is to be immersed in fluid, antiseptic or otherwise. The entire amount should not be drawn off, when the effusion is serous; thus alarming symptoms may be obviated.

In purulent effusions P. recommends incisions. A trial-puncture may be made; then the knife is thrust directly through the intercostal space into the cavity; a grooved director is then introduced upon the keen edge and the opening enlarged.

Resection of a rib appears to P. to be, in all recent cases of empyema, an unnecessary and cruel complication of the operation. The author also protests against irrigation of the pleural cavity and unnecessary exploration by the fingers. Early operation is advised, so that the compressed lung may be in the most favorable condition for re-expansion.

AGUE AS A PROPHYLACTIC OF PHTHISIS.—The *London Medical Record* says: This action of ague is relative rather than positive; that is, phthisis occurs more frequently in regions where intermittents are not epidemic, and *vice versa;* we can not say that, where intermittents are dominant, there phthisis is not met with—both diseases may occur simultaneously in the same person. Dr. Vieta (*El Genio Medico-Quirurgical*, January 15, 1883) describes his experience in Azagra, in the Kingdom of Navarre. The situation of the town is damp and low; it is surrounded by the rivers Ebro and Ega, and formerly these constantly overflowed their banks, submerging half the town; the streets were unpaved and full of holes, in which the water lodged. In the outskirts much hemp was cultivated, which, when cut, was macerated in pools, of which there were a very large number. Intermittent fever in its worst forms was very prevalent. Now the streets are paved, the rivers embanked so that they no longer overflow, and hemp is not so much grown, market-gardening being found more profitable. Intermittents are no longer epidemic; a few simple cases occur, but the paludal cachexia is no more seen, and the cases yield readily to treatment. But with this diminution of intermittents there is a marked increase in the number of cases of chronic affections of the chest, and especially of phthisis, which was formerly almost unknown. Dr. Vieta does not attempt to account for this antagonism; he attributes the phthisis to neglected bronchial catarrh, and not to hereditary influence or diathesis, which does not seem to exist. He therefore hopes that improved hygienic knowledge and practice, leading the people to be more careful as to exposure, etc., will diminish the number of cases of pulmonary disease.

THE MENTAL STATES INDUCED BY FRIGHT.—The *Wiener Medizinische Wochenschrift*, of July 19, 1884, contains an abstract of an interesting account of the earthquake at Ischia, written by Dr. Fazio, an eye-witness of the scene. The emotions awakened by the catastrophe were of the most varied character. During the fifteen seconds that the shock continued everybody stood still, seemingly rooted to the ground with terror. Men were weak in the knees and shook as with ague, feeling as though they were about to fall, but none of them had convulsions, delirium, or syncope. But soon this stillness was broken by loud cries and howls, and every one rushed toward the shore. Then women and children fell into convulsions, or appeared to be semi-paralyzed and speechless. Rudeness and brutality were mingled with self-sacrifice and heroism of the most exalted character. Six hours after the catastrophe the stillness of death reigned over Casamicciola. Men wandered about the ruins half clad and silent as if risen from the grave; women were excited and hysterical; children of eight or ten years seemed dazed and stupefied, while smaller children stood around unconcernedly eating whatever they could find in the ruins. It is most interesting to see the different ways in which individuals were affected by the shock. The keeper of a refreshment booth who had lost everything kept offering his delicacies to those who passed by, just as though everything had not been swept away. A surgeon, covered with blood, and sorely wounded by the fallen beams, was concerned only for his instruments, and inquired after them of everybody whom he encountered. An hysterical woman, who had been bed-ridden for months, jumped up and saved herself by flight, and remained permanently cured. Many who were at first brave and full of energy became later depressed and apathetic, or had convulsions or alternate fits of laughter and crying. Sometimes a melancholia was induced which continued for months, and many became incurably insane. Abortion was very common, and there were many cases of suddenly arrested menstruation. The sexual appetite was universally destroyed for many days after the earthquake, and in many instances there was also an aversion to food. There were numerous cases of retention of urine, sometimes lasting for days and demanding catheterization. There were several instances in which the hair was whitened by fright, and even some boys of ten to fourteen years showed heads sprinkled with gray. Many of those buried in the ruins exhibited the greatest indifference to their fate, following listlessly with their eyes the motions of those busied in their rescue. A foreign officer whose legs were imprisoned under some heavy timers, drew out a cigarette and smoked it with the utmost nonchalance. One man, as soon as he was pulled from the ruins, shook his rescuer by the hand and presented him with his card. Another, who lay beneath the debris for twenty hours, immediately looked at his watch in order to record the exact instant of his deliverance. A lady who had just been extricated from a mass of rubbish would not budge from the spot until she could ascertain the fate of her pet dog, which was buried with her. One woman who heard a man calling for his daughter, deceived him so cunningly that she was rescued by him before the trick was discovered. Most of the people, however, who were imprisoned beneath the ruins were too indifferent to their fate to attempt any such deception, and most of them had not the slightest idea of the length of time during which they were buried. Most of those who were wounded by the falling buildings underwent the necessary surgical operations without experiencing any pain, though some were hyperæsthetic.

SUCCESSFUL TREATMENT OF SNAKE-BITE BY THE EXPLOSIVE CAOTERY.—Surgeon T. G. Wilcox, U. S. Army, reports the following case in the *Boston Medical and Surgical Journal:* The recent reports of fatal cases of snake-bite, induce me to invite attention to a method adopted and found successful in the case of a soldier of Troop I, Fourth Calvalry, at Camp Supply, Indian Territory, in the fall of 1878.

The patient was struck upon the dorsum of third phalanx of the forefinger, while engaged in gathering wild grapes.

He reached me very soon after the occurrence, probably not more than ten minutes. The surface about the fang puncture was slightly moistened, and as much gunpowder as could be retained placed on it. The powder was then ignited, the wound scarified, and powder again ignited upon it; then a light linseed poultice sprinkled with tinct. opii, completed the dressing. Brandy was then administered freely, and the patient soon fell asleep. The finger and hand were considerably swollen and discolored. There was slight nausea and depression, all of which soon passed off, and the man recovered.

I had learned of a case occurring among the Indians a short time before this, which was successfully treated by the explosive cautery, followed by a poultice of the chewed root of a species of chenopodium. No stimulants. In this case, that of a young squaw, the wound was on the leg.

This cautery is rapid, painless and thorough, and, if quickly applied, appears to afford the best chances for recovery.

The Therapeutic Properties of Buttermilk.—Buttermilk, so generally regarded as a waste product, has latterly been coming somewhat into vogue, not only as a nutrient, but as a therapeutic agent, and in an editorial article the *Canada Lancet*, some time ago, highly extolled its virtues. Buttermilk may be roughly described as milk which has lost most of its fat and a small percentage of its casein, and which has become sour by fermentation. Long experience has demonstrated it to be an agent of superior digestibility. It is, indeed, a true milk peptone, that is, milk already partially digested, the coagulation of the coagulable portion being loose and flaky, and not of that firm, indigestible nature which is the result of the action of the gastric juice upon sweet cow's milk. It resembles koumiss in its nature, and, with the exception of that article, it is the most grateful, refreshing and digestible of the products of milk. It is a decided laxative to the bowels, a fact which must be born in mind in the treatment of typhoid fever, and which may be turned to advantage in the treatment of habitual constipation. It is a diuretic, and may be prescribed with advantage in some kidney troubles. Owing to its acidity, combined with its laxative properties, it is believed to exercise a general impression on the liver. It is well adapted to many cases where it is customary to recommend lime-water and milk. It is invaluable in the treatment of diabetes, either exclusively or alternating with skimmed milk. In some cases of gastric ulcer, and cancer of the stomach, it is the only food that can be retained.

Virchow upon the Cholera and Tubercle Bacillus.—At the time of the return to Berlin and public reception to the Cholera Commission, Professor Virchow made a speech, in which he uttered some timely words of warning. He said: "It appears to me that the Government is not entirely free from the opinion that with the discovery of the bacillus everything is accomplished which may be necessary to control the disease. In this connection I may speak a warning word. It is more than thirty years since we discovered the little organism which causes the small-pox, but this fact has not changed in the least the practical measures previously adopted for its prevention. The tubercle bacillus is a very important thing, but with the exception of a new point of view of the disease which is given, we are no further advanced in our practical relations to it." He then goes on to say that the cholera has for some time been practically treated as though it were caused by a special organism. He also referred to the laxity of the English in the matter of quarantine.—*Medical Record.*

On Compressibility of the Brain—Professor Adamkiewicz presented a communication to the Society of Physicians of Vienna, on compression of the brain. He briefly recapitulated the results of his former experiments concerning pressure of the brain, given in a previous lecture, then passed on to the relation of the compressibility of the nerve-masses. It is easy to prove the compressibility of the brain-matter. If one fits a piece of laminaria in the brain of a rabbit, after a few days it is swollen, and the brain-substance locally depressed. The brain, however, has remained quite normal in all its layers, and is consequently compressible. This fact is, therefore, proven. The leading authorities upon the subject teach that a tumor which generates itself in the brain, causes increased tension of the cerebro-spinal fluid, and, as a further consequence, compression of the vessels and anæmia. In order to answer the questions, how do the blood-vessels act during intra-cranial tumors? and does the resulting anæmia occur through compression of vessels? he again inserted laminaria tents. This time he bled the rabbit to death, and then injected the blood-vessels. It was demonstrated that they were hyperæmic at the point of compression; also that a fluxion had afterward occurred on account of the paralysis of the muscles caused by the pressure. The compression of the brain-tissue, therefore, does not ensue at the expense of the vessels, nor at the expense of the incompressible liquor. It must be due to a condensation of the cerebral tissue itself.

Tracheotomy by Thermo-Cautery.—In a communication to the Société de Médecine à Strasburg, J. Boeckel reports in favor of thermo-tracheotomy, a method practiced as early as 1872, by Verueuil in France and Bruns, and Voltolini in Germany. His report is based upon 61 cases. He arrives at the conclusion, that in those cases in which the thyroid gland is not much developed, and the skin is thin and without much fat, and the trachea, therefore, is presented superficially, that the knife is the proper instrument for operation. In all other events, however, B. warmly recommends thermo-tracheotomy. He splits the integument with a bistouri and then slowly, and directly in the middle line, goes down to the trachea by means of a Paquelin thermocautor, heated to a moderate red heat. The trachea, and, if necessary, the cricoid cartilage is then divided by the knife. In no case did B. have hemorrhage during the operation, nor later when the eschara was cast off. In 44 cases recovery ensued and no stenosis of the trachea occurred.

Osmic-Acid in the Treatment of Epilepsy.—Wildermuth (*Berliner Klin. Wochenschrift*, *Centralbl. f. Med.*) has experimented for the past two years with osmic acid as a remedy for epilepsy, using pills of osmate of potassium, each containing one one-thousandth of a gramme of the salt. The largest amount given in a day was fifteen one-thousandths of a gramme. The trials were begun upon ten confirmed epileptics. Seven showed no result; in two the attacks became less frequent; and in one, whose case was apparently quite desperate, a most astonishing change took place, consisting of a prompt diminution in the frequency and severity of the attacks, and their final disappearance, together with an improvement in the mental condition. Of three patients with whom the osmic-acid treatment had only recently been begun, two showed perceptible improvement, and in the third no effect was noticed. In none of the cases were any evil effects observed.—*N. Y. Med. Journal.*

Experiments with Caffeine.—Influenced by the alleged identity of the general physiological, if not therapeutical, effects of caffeine and cocaine, the writer was led to test the former, hoping that it also might prove to possess local anæsthetic properties, but a four per cent. solution failed to appreciably lessen the sensitiveness of his own conjunctiva. Bearing in mind that caffeine is only one-sixth of the strength of cocaine as regards systemic effects, a much stronger solution of caffeine was next tried, namely: twelve per cent. on the patient, Case 1, in whom the anæsthetic properties of cocaine (4 per cent. sol.) had been quite decided; but the conjunctiva remained sensitive, and grasping it with forceps caused pain. This would seem to show that caffeine is not a local anæsthetic; a fact to be regretted, because it can be had pure and cheap, and the supply is unfailing, while it would seem good coca leaves are seldom imported.—*Canada Lancet.*

Pocock, acute rheumatism in a new-born infant, treated with salicylate of soda. (*Rev. Mens. des Mal. de l'E.*, Sept., 1884. Abstract.) A woman in the eighth month of her pregnancy was taken with acute articular rheumatism, and treated after the third day with salicylate of soda. The rheumatic pain disappeared after thirty hours and labor supervened. The rheumatism ran its course, however, and did not disappear entirely until five weeks afterward. As to the child, less than twelve hours after its birth it was seized with a violent fever, and presented a painful swelling accompanied with redness on the top of the right shoulder. Salicylate of soda, in 25 centigram doses, every two hours, was ordered, and at the end of twenty-four hours the temperature had fallen from 40° C. to 38.5°, and the pulse from 170 to 140; the pains had also diminished. The treatment was continued eight days, after which the child appeared to be perfectly well. There was no heart murmur at any time.

QUININE BISULPHATE.—The United States Army this year contracted for eight thousand ounces of bisulphate of quinine, and thus far has not bought any of the ordinary sulphate. The fact that the ready solubility of the bisulphate enables it to be dispensed in aqueous mixtures, as well as the equally well-ascertained fact that this ready solubility renders its action more prompt and certain, are probably two of the chief reasons why this salt was given the preference. Outside the army, the bisulphate has been steadily gaining in favor. It can be afforded at a price slightly lower than that of the sulphate, and, in equal doses, seems to be equally efficient. It contains from fifty-nine to sixty per cent. of alkaloid quinine, while the ordinary sulphate contains about seventy-five per cent. Should the experience of army surgeons be satisfactory, this soluble sulphate will probably be much more largely used in the future.—*The Druggists' Circular.*

ANTIPYRIN is a new anti-pyretic and is recommended as a substitute for quinine. It is a white crystalline powder, with a slight aromatic odor and somewhat bitter taste. It is soluble in water, and the dose as an anti-pyretic is fifteen to thirty grains. Drs. Penzoldt and Sartorius, who have made numerous trials of the drug in diseases of children, regard it as a very effectual remedy in the pyretic diseases of childhood. It reduces the temperature several degrees, but not the frequency of the pulse to a corresponding degree, and the only disturbance it causes is, occasionally, vomiting. They give it in three doses, at an interval of an hour, each dose consisting of as many decigrams (1½ grs.) as the child has lived years.

Hydrocele in Woman.—Prof. Hennig, of Leipsic, read a communicarion upon this subject in the *Versammlung Deutsches Naturforscher und Aerzte*, in which he systematically considers the anatomy, etiology, clinical varieties, diagnosis, and treatment of this rare affection. He had found in medical literature forty-one cases, two of which had been under his care. Often the effusion in the canal of Nuck is complicated by protrusion of some of the viscera, which possibility must be taken into consideration. In some cases simple puncture, in others injection of iodine, was sufficient to obtain complete occlusion of the sac. Excision of part of the sac and packing the cavity with charpie, and in one case the ligatures (of iron wire), were also successful.—*Deutsche Medizinal Zeitung*.

Fresh-air Children.—In America it seems, there exists the commendable practice, not unknown in this country, of organizing trips to the country for poor children of great cities, and it has obtained the name of "fresh-air" philanthrophy. An American journal relates the following story apropos of this custom: "Among the young waifs brought out from the city, a young lad stood looking at the circus pictures, when a couple of ladies came up, and one of them, pointing to the boy, said, 'That is one of the fresh-air children.' The other lady remarked, 'He looks as though he might be; I'll speak to him.' So she said, 'My boy, are you one of the fresh-air children?' 'Well,' he replied, 'not so very d—d fresh.' Which ended the dialogue."—*Birmingham Medical Review*.

Ligature of the Common Carotid.—Dr. W. Honeywell, of New Glasgow, P. E. I., with the assistance of Drs. Toombs and Gallant, of Cardigan, successfully ligated the common carotid, below the cricoid cartilage, a short time ago. The patient, a sailor, fell down-stairs in a vessel, on a piece of earthenware, which penetrated his neck below the under jaw, making a ragged wound about two inches deep and wounding the external carotid. The usual incision was made along the anterior border of the sterno-mastoid, and the vessel tied with a prepared violin string (this was kept in oil of juniper for six weeks, then put in alcohol). The wound was washed out with a solution of corrosive sublimate (1 to 2,000), then covered with iodoform gauze. It healed by first intention, and the patient recovered without a bad symptom, except a little vertigo.

MURDOCK'S LIQUID FOOD.—"This American preparation," says the *Lancet*, "is described as 'an extract of beef, mutton and fruits, containing corpuscles and 12½ per cent. of soluble albumen.' The solution gives the blood-spectrum very strongly, and contains so much albumen as to become almost solid with dilute nitric-acid. Of course, it is an exceedingly powerful and easily digestible form of food. It is calculated to be of the utmost use in medical practice; and although the flavor is not very pleasant, it is not absolutely disagreeable, and may, no doubt, be modified by salt and spices. Among other applications, the use of the liquid food as an enema will strike every one."—*N. Y. Med. Journal.*

COLORADO BEETLES IN THE STOMACH.—Dr. Harrison, of Keene, Ont., sends us the following: On July 9th, a child two years old was brought to his surgery very ill. The symptoms were indicative of intestinal and alimentary irritation, with tendency to stupor. He was doubtful about the cause, but thought it might be due to worms or something the child had eaten. He gave some powders of santonine, aloine, etc. Two days after, the parents were amazed and alarmed at seeing the child pass a large quantity of Colorado beetles in the pupa state. The child continued to improve steadily as soon as rid of the offenders. Strange to say they did not appear to be the least inconvenienced by their sojourn in the child's stomach.

FRECKLES.—Freckles, or lentigo, may sometimes be made to disappear by an application of citric acid night and morning. The method employed by dermatologists, and attended with considerable success, is to apply a solution of corrosive sublimate, one to three grains to the ounce of water, or emulsion of almonds night and morning. Dr. Duhring reports the latter as the most satisfactory, and advises its application until a slight amount of desquamation takes place. —*St. Louis Med. and Surg. Jour.*

ERGOT IN CHOREA.—The value of ergot in many affections of cerebro-spinal system is well known. On the assumption that the smaller vessels of the brain, as Dr. Dickinson maintains, are in a state of dilatation, Dr. Forrest (*London Lancet*) has been experimenting with this remedy in chorea. He began by giving the fluid extract in five minim doses, and the results have been on the whole satisfactory.

Book Notices.

A Handbook of Ophthalmic Science and Practice.—By Henry E. Juler, F. R. C. S., Junior Ophthalmic Surgeon to St. Mary's Hospital; Senior Assistant Surgeon and Pathologist to the Royal Westminster Ophthalmic Hospital, etc. With 125 Illustrations. 8vo. Pp. 467. Philadelphia: Henry C. Lea's Son & Co. Cincinnati; R. Clarke & Co. Price, $5.50.

This work is distinguished by the great number of colored plates which appear in it for illustrating various pathological conditions. They are very beautiful in appearance, and have been executed with great care as to accuracy. These plates are termed chromo-lithographic. With one exception they have all been taken from cases met with in the course of clinical work, chiefly at the Royal Westminster Ophthalmic Hospital, St. Mary's Hospital, and the Royal London Ophthalmic Hospital.

An examination of the work shows it to be one of high standing—one that will be regarded as an authority among ophthalmologists. Students, who propose to make diseases of the eye a specialty, will find it well adapted to them. The pathology of eye affections is shown in a very clear and interesting manner, not a few of the chromo-lithographic plates exhibiting the microscopical changes brought about by disease. The treatment recommended is such as the author has learned from actual experience to be the best.

We have neither space nor time to call attention to particular parts of the work, for the purpose of discussing them, but we will mention that the chapter upon color-vision and its defects is peculiarly interesting. If it were not that its length precludes, we would copy it entire, for we feel sure that every general practitioner would be quite interested by its reading.

Dr. Charles A. Oliver, of Philadelphia, has made some valuable additions to the American edition; among them a description of a new astigmatic disk, with an explanation of its use; also, results and conclusions derived from his researches as to the comparative effectiveness of the different mydriatics. A selection of the test-types of Jaeger will also be found in addition to those of Snellen.

THE BASIC PATHOLOGY AND SPECIFIC TREATMENT OF DIPHTHERIA, TYPHOID, ZYMOTIC, SEPTIC, SCORBUTIC AND PUTRESCENT DISEASES GENERALLY. By Geo. J. Ziegler, M. D., Late Physician to the Philadelphia Hospital, Member of the Phil. Co. Med. Society, Member of the American Med. Association, etc. 12mo. Pp. 227. Philadelphia: Geo. J. Ziegler. Price, $2.00.

Since receiving this work we have had too little time to examine it, to express any opinion in regard to its merits. We hope at some other time to be able to say something about it. The object of the author in his publication is to endeavor to show that all the varied and complex diseases classed as scorbutic, necræmic, typhoid, zymotic, septic, infectious, malarial, gangrenous, putrescent, and allied affections, by whatever name designated, from the simplest to the most malignant, are dependent upon or complicated with one common basic, alkaline, pathogenic factor, mostly the volatile organic alkali, ammonia, incidental to all forms of life, and differing only in quantity and the constitutional and local manifestations and complications arising from diverse ætiological and pathological conditions, yet underlying and intensifying them all, and thus often complicating and rendering more severe every form of disease, even of the simplest kind, for the successful treatment of which this primal morbific factor must be decomposed, neutralized, or removed, which can usually be readily effected by acidulous, antalkaline, resolving and counteracting agents, thus simplifying the hygienic and therapeutic problems in general, and giving more definiteness and certainty to sanitation and therapeutics, in both preventative and curative medicine.

HOLDEN'S ANATOMY: A MANUAL OF DISSECTION OF THE HUMAN BODY. By Luther Holden, Late President of the Royal College of Surgeons of England; Consulting Surgeon to St. Bartholomew's Hospital and the Foundling Hospital. Fifth Edition. Edited by John Langton, Surgeon to, and Lecturer on Anatomy at St. Bartholomew's Hospital, etc. With over 200 Illustrations. 8vo. Pp. 886. Philadelphia: P. Blakiston, Sons & Co., Cincinnati: R. Clarke & Co. Price, Cloth, $5.00; Sheep, $6.00

This dissecting manual has been known to medical students for a long time; and that it has been favorably known is evident from the fact that it has reached a fifth edition. In these days when so many are seeking for authorship, a medical work must have undoubted merit to reach five editions.

This work is not designed merely for the study of anatomy—to merely exhibit the structure of the human body, to show how many bones there are in the skeleton; what they they are and their uses; to describe the various muscles and their objects; the nerves and blood vessels; the organs of the body and their functions—the knowledge of which can be studied and acquired in the office from a descriptive work upon anatomy—but it is for the use of those who are engaged in the practical study of anatomy, for those who are employed in the dissecting room in dissecting, and wish to study the parts as they are disclosed by the dissecting knife in regular dissecting. The ordinary work upon anatomy first describes the bones of the skeleton, then the muscles, then the blood vessels, etc. Each one of the various tissues is fully treated before another is taken up; but the human body can not be dissected in that manner, for when the integument of any part is raised, we have presented to our eye muscles, nerves, and blood vessels together, and we will be in confusion, however thoroughly we may have studied some general work upon anatomy, unless a demonstrator of anatomy points out to us the various structures before us and explains their relations to one another, or we are enlightened by a dissecting manual similar to this one of Mr. Holden's.

A peculiar feature of the work before us is that the author has made it a special aim to direct the attention of the student to the prominent facts of anatomy, and to teach him the groundwork of the science; "to trace the connection, and to point out the relative situation of parts, without perplexing him with minute descriptions."

We have met with many "dissecting manuals" and "dissectors," but the work before us is much superior to any work brought to our attention, for the use of those engaged in dissecting. The most approved methods are given for dissecting—the several regions of the body being treated in the order considered most suitable for their examination, and the muscles, vessels, nerves, etc., are described as they are successively exposed to view in the process of dissection.

In the fifth edition the editor has carefully revised the work. Further illustrations and additional matter has been introduced.

A Text-Book of Pathological Anatomy and Pathogenesis.—By Ernst Ziegler, Professor of Pathological Anatomy in the University of Tubingen. Translated and Edited for English Students, by Donald McAlister, M. A., M. B., Member of the Royal College of Physicians; Fellow and Medical Lecturer of St. John's College, Cambridge. Part II—Special Pathological Anatomy. Sections I–VII, 8vo.; pp. 365. New York Wm. Woods & Co. Cincinnati: H. Stacy.

This work forms the September number of "Wood's Library of Standard Medical Authors for 1884," which, as we have frequently stated before, are sold only by subscription. Or, rather, each yearly Library is sold by subscription, and the individual works of a series can only be obtained by those subscribing for the series to which they belong.

Prof. Ziegler's text-book, we understand, has met with a very rapid sale in Germany, and we have no doubt but that it will be as highly appreciated in this country. Two editions of those sections which have been published in Germany, have been exhausted, and a third edition is being gotten ready. No one can look through this work without being impressed with its value.

There are in this volume before us, eight sections. The first chapter of the first section is devoted to the consideration of the blood and lymph, while the second treats of intravascular congulation or Thrombosis. Chapter III describes the changes in the quantity and composition of the blood, and the three remaining chapters treat of the blood-corpuscles, solid impurities in the blood, and changes in the lymph. In the other sections are considered the vascular system, as malformations, and malpositions of the heart, atrophy, and degeneration of the heart, etc.; the spleen and lymphatic glands; the serous membranes; the skin; inflammation of the skin; the mucous membrane; the alimentary tract; the liver and the pancreas, as pigmentary infiltration of the liver, malformations and malpositions of the liver, disorders of the hepatic circulation, etc.

There are two hundred figures or cuts illustrating the various pathological changes, which will prove of great value in obtaining a correct idea of them.

Such a work as this one, published by itself, would cost many times the price at which it sells as a member of a series. Each yearly series of twelve volumes costs but fifteen dollars. We are confident that no publisher could afford to publish this one by itself with all its illustrations, for less than six dollars, which is nearly half the price of the whole series. Physicians are certainly greatly indebted to Messrs. Wood & Co., for thus affording them an opportunity to secure most valuable medical works, at a price as cheap as that, at which popular reading books are sold.

A MANUAL OF DISEASES OF THE THROAT AND NOSE, INCLUDING THE PHARYNX, LARYNX, TRACHEA, ESOPHAGUS, NOSE, AND NASO PHARYNX.—By Morell Mackenzie, M. D., Lond., Consulting Physician to the Hospital for Diseases of the Throat, etc. Vol. II—Diseases of the Esophagus, Nose, and Naso-Pharynx. 8vo., pp. 400. New York: Wm. Wood & Co. Cincinnati: H. Stacy.

This work forms the August volume of "Wood's Library of Standard Medical Authors." What we have said of the text-book of Dr. Ziegler on Pathological Anatomy as a member of the series of Wood's Library, is applicable to this work. Every physician of this country, who is familiar with the names of medical authors, knows that Dr. Morell Mackenzie stands at the head of the list of writers upon diseases of the throat, nose, etc. In fact, he has done more in the way of elucidating these affections and placing their treatment upon a scientific basis, than all the other writers upon them combined. His works are the standard ones, and of the highest authority.

The author states in his preface, that the present work has been written and rewritten many times, so that, as now presented, it sets forth the results of his observations and experience up to the present time. He has not only been an untiring worker himself in his favorite field, but has evidently kept himself informed in regard to the progress made by others. The work, therefore, is fully abreast of the times in presenting all the important features of the specialty to which it is devoted.

Although the volume is numbered upon the title page as the second volume, yet it is complete in the diseases which it treats. The first volume is not essential to it.

The Messrs. Wood & Co. could not have placed in their library a more valuable work.

Editorial.

A NATIONAL BOARD OF HEALTH.—The representatives of State Boards of Health met pursuant to adjournment in the City of Washington recently. The conference drew up a bill to reorganize, or establish a new National Board of Health, which will be presented to Congress for action. We copy the following from the *N. Y. Med. Journal* in regard to it:

"This board will consist of persons appointed from actual State Boards of Health, and no person not at the time a member of a State Board of Health is to be eligible for appointment. No compensation is to be charged for the services rendered, but actual necessary expenses will be allowed. The duties of the board are to be, to investigate the causes of diseases and epidemics at home and abroad, to make regulations for quarantines, and to aid State Boards of Health. The former laws relative to vessels from infected ports are to be re-enacted, and the several rules and regulations, when duly approved by the President, are to be executed by the existing departments of the Government. The board is to have a chairman and a secretary, and is to meet annually; it may, however, be called together in a sudden emergency by the President of the United States, or by its own officers. The Department of State is hereafter to prepare the abstracts of the information received from consuls and medical officers abroad, and transmit the same to persons officially interested. Five hundred thousand dollars are to be appropriated for the purposes of the act.

"It is thought, by those interested in the measure, that the practical working of the new bill, which may possibly pass at this session of Congress, will remove the sources of irritation which were found under the operation of the old law. The new board will have the special advantage of representing something, will constitute a powerful organization, and, as it will be legislative and advisory in its functions, will meet with no opposition from the departments of the Government, whose duty it will be to carry its decrees into effect. The work of sanitary investigation will certainly suffer no diminution in vigor by being placed in the hands of practical men. The result, while perhaps mortifying to the present board, will harmonize other conflicting interests, and can meet only with success. The only drawback to the pas sage of the bill at this session is the fact that the latter is short, its real business requiring to be accomplished in less than two months.

"The bill for the erection of a new museum and library building is expected to come up this week, and, as there is no opposition, its friends look confidently for its passage."

MICROSCOPES.—Our friends frequently request us to assist them in purchasing a microscope. As we have never made it a part of our business to sell microscopes, when an order has been sent us, we have sent it at one time to one manufacturer and at another time to another—not unfrequently having the objectives sent to us for examination, that we might be sure that the purchaser, in these important parts of a good instrument, had the best to which he was entitled. However fine a stand an individual may have, if the object-glasses are inferior, he is poorly equipped for investigation; but with a comparatively poor stand, or with one lacking many conveniences, if the lenses are good—possess fair resolving power, good penetration, flatness of field, etc.—a microscopist can get along tolerably satisfactorily.

Having received, unsolicited by us, an unusual number of orders during the last three or four months, we have made arrangements with the *Gundlach Optical Company*, of Rochester, N. Y., to furnish such subscribers of the MEDICAL NEWS as send us their orders, with a superior instrument—including stand, objectives, and case—for the low price of $45.00. We have not time to enter upon a lengthened description of it, but will state that there is rack and pinion for coarse adjustment, fine micrometer screw behind the body for fine adjustment, a broad, thin stage, plain and concave mirrors throwing very oblique rays. The body has an inner tube, at the extremity of which an objective can be attached, which permits the use of powers as low as three inches or lower. The whole stand is elegantly finished. The case is of black walnut, having a drawer, and places for eye-pieces, and objectives.

Two objectives go with the instrument—a quarter inch and a two-thirds. But as the latter glass is divisible—an excellent inch lens resulting upon unscrewing the front—the purchaser has the advantage of three powers.

The quarter-inch objective is guaranteed to stand the tests which a power of its grade should. It resolves with ease the pleurosigma angulatum, has flatness of field, and unusual penetration, etc. It affords a very clear image without any cloudiness.

All microscopists know that there are no makers of objectives more eminent than Mr. Gundlach. He has a high reputation, not only in this country, but throughout Europe, and the fact that a lens has been made by him is a guarantee of its superiority.

As we have stated, we do not propose to enter into the business of selling microscopes, for our time is too much occupied in other directions; but as we feel under obligations to extend favors to our friends, we have made arrangements in the way we have stated, to have filled such orders as may be sent us. We feel sure that as fine an instrument as we have arranged to be supplied to our subscribers at our order, can not be purchased elsewhere for a less sum than $55 or $60. It will meet any requirement for any kind of work.

Although the power is ample for all practical purposes in any branch of science, yet, if after awhile the purchaser may wish to add other objectives to those furnished with the instrument, it can be very easily done at list prices. As the instrument has the "Royal Society Screw," the powers of any American or English maker can be used with it. A glass sometimes convenient to have, although not essential for work, is an immersion one-tenth or one-twelfth of from 160° to 175° angle of aperture.

While speaking of microscopes, we will allude to a very erroneous impression held by many persons. It is brought to our attention almost every day by letters of correspondents. The large majority of individuals, not familiar with the microscope, suppose that the quality and value of one depends upon its capacity to magnify, or to make an object took large. Of course, such persons know nothing about the conditions involved in magnifying. With the exception that a microscope is employed to examine near objects and not distant ones, they regard it in the same way they do a telescope. They know that a telescope that answers the purpose to exhibit a house located upon an elevation one or two miles distant, is a very small affair compared to the telescope of Lord Ross, or of smaller ones still that will show the spots upon the sun or the mountains in the moon; and consequently viewing microscopes in the same way, supposing that each one has but a single capacity of magnifying, which is either small, medium, or great, they rate an instrument according to its capabilities of making any near object look large. Every few days we receive a letter from some subscriber inquiring of us the price of a microscope that will magnify 500 diameters, and the price of one that will magnify 800 or 1,000 diameters. Also our advice is frequently asked as to the power of the instrument they had best purchase.

Now magnifying with a compound microscope depends upon several circumstances: the power of the objective or lens at the lower end of the tube; the power of the eye-piece, or lens, at the upper end of the tube next to the eye, and the length of the tube. The eye-pieces are generally rated A, B, C, etc., according to their length; and the price of them, according to quality, is from about $3 to $5 each. With the most of makers the C eye-piece (we are speaking of American and English makers) magnifies twice as much as the A eye-piece. For instance, if the tube is ten inches long, and a quarter-inch objective * is screwed on the lower end, with an A eye-piece, an object will be magnified 200 diameters (40,000 times), with a C eye-piece it will be magnified 400 diameters (160,000 times). But, if the instrument happens to have a draw-tube, the enlargement will be materially increased with every inch it is drawn out, the eye-piece and the objective remaining the same.

Those not knowing better before, will observe that it requires only the expenditure of some three or five dollars to make a microscope magnify four or five hundred diameters, which, with an A eye-piece, magnified but half that many times. But as with a compound microscope, the observer sees but the image of the object, and not the object itself, the increased enlargement by the change of eye-piece, is brought about by magnifying the image. It is only with a simple microscope or magnifying glass, as it is usually termed, that we see the actual object enlarged.

Although a microscopist, in his work, frequently needs an objective of a power as high as a quarter inch; yet he does five-sixths or more of his work with a less power. A power used very much by those having it, is a half-inch or a four-tenths, † costing from eight to ten dollars (we are not speaking of fine resolving glasses of extreme angles, which range in price from $50 to $80, but good working glasses); but one can get along very satisfactorily with a one-inch and a

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* As a general rule, object glasses are underrated by their makers, and eye-pieces also; so that a quarter-inch objective with an A eye-piece usually magnifies 225 or 230 diameters.

† A two-thirds is a very good substitute for either one of these.

quarter-inch lens. It is very seldom that there is occasion for greater magnifying power than 250 or 300 diameters.

If persons will keep in mind what we have stated in regard to the magnifying capacities of microscopes, ourselves and others will be saved the trouble of replying to letters written in great ignorance of their power and uses. Our remarks have been made in a general way, for the benefit only of those who are not conversant with the first principles of microscopy; and we have consequently made no allusion to angle of aperture, etc.

GUARDING AGAINST CHOLERA.—The New Jersey Sanitary Association ended its tenth annual session in Trenton, December 5, 1884. The duty of the State and local authorities as to cholera was the subject discussed. Resolutions were adopted, calling on the National and State Governments, to adopt the strictest quarantine measures to prevent the introductiom of cholera into the country, declaring it to be the duty of the State and local Boards of Health in the winter and early spring to place every city, town and township in the most favorable sanitary condition, and urging the people to coöperate by a systematic overhauling and disinfection of every part of their houses. It was also declared necessary that health officers should have police powers to enter any house to detect nuisances and abate them. Attention was called to the necessity of having pure water for domestic purposes.

The following officers were elected:

President.—Dr. Robert Westcott, Elizabeth.

First Vice-President.—Dr. Labag Dennis, Newark.

Second Vice-President.—Professor Jas. M. Green, Long Branch.

Recording Secretary.—Dr. D. C. English, New Brunswick.

Corresponding Secretary.—Professor J. Madison Watson, Elizabeth.

Treasurer.—Dr. W. K. Newton, Paterson.

THE CHARGES AGAINST THE PRESIDENT OF THE ACADEMY OF MEDICINE.—Charges having been preferred against the President of the Academy of Medicine, Dr. Fordyce Barker, by Dr. E. S. F. Arnold, Dr. Nathan Bozeman, Dr. Austin Flint, Jr., Dr. S. S. Purple, Dr. C. S. Wood, and Dr. William Young, turning upon the allegation that he was not a graduate of the Paris School of Medicine, as he had sworn to being, the testimony for and against the charges was investigated by the Committee on Ethics, consisting of Dr. Andrew H. Smith (chairman) Dr. Virgil P. Gibney, Dr. Charles A. Leale, Dr. Henry E. Campton, and Dr. C. Dixon Varley, and at the last regular meeting of the Academy, held on Thursday evening, December 18th, the committee unanimously reported (giving the evidence in full) that the charges were not sustained. On motion, the report of the committee was unanimously accepted and adopted by the Academy. On resuming the chair, which he had vacated during the reading of the report, Dr. Barker said: "'Here endeth the second lesson.' The Academy will now resume its scientific work, which it had continued zealously, efficiently and harmoniously for thirteen months until the present interruption by this supreme effort to elevate the character of the medical profession." Various motions were then made, looking to the censure of the gentlemen who had brought the charges, but when it had been moved by Dr. John C. Dalton, supported by the President, that they be laid on the table, they were all withdrawn.

THE NINTH INTERNATIONAL MEDICAL CONGRESS.—At the outset of its work, the General Committee of Organization has met with a serious loss in the death of one of its members, Dr. James G. Thomas, of Savannah. In a circular announcing the fact, the Executive Committee state that Dr. Thomas, at considerable sacrifice, went to Washington on the 29th of November, to attend the meeting for organization, and that on the way he was seized with pneumonia, which was the cause of his death.

DR. HENRY A. MARTIN, widely known in connection with vaccination, died December 7, 1884, at his residence at Boston Highlands.

YALE FOUNTAIN GOLD PEN.—Our readers will remember the notice of this pen in our last issue, and of the high terms in which we spoke of it. The barrel or handle, as we mentioned, carries about two drachms of ink—enough to fill with writing, we should judge, about two quires of paper. It is the only reliable pen, furnished with ink, with which we have ever met, and we have had experience with quite a number of fountain and stylographic pens. It is an article which every physician and man of business should have. We would not do without one for many times its cost.

The manufacturer's price is $3.00. We will send one gratis to any one sending us the names of two new subscribers for one year and $4.00 in payment for them. We could not afford to make this offer if we did not expect that the subscribers would continue to take the NEWS at the usual price at the expiration of the year. We will send the pen to old subscribers, in the way of a favor, for $2.50.

We will take this opportunity to say, that we will send to any of *our subscribers* any medical journal published in the United States, the price of which is three dollars and upward, for one dollar less than the subscription price. Those who are subscribers of some other medical journal, can take the MEDICAL NEWS at a cost of only one dollar a year, by subscribing through this office. Our arrangements with other journals are such, that almost any one published in this country, the price of which is three dollars or more, will be sent at our order at a dollar less than the subscription price.

A NEW WORK.—The publishing house of Messrs. Henry C. Lea's Son & Co., of Philadelphia, will, on the 1st of February, issue the first volume of a new and most elaborate work, entitled the *American System of Practical Medicine.* It will be edited by William Pepper, A. M., M. D., assisted by Louis Starr, M. D. But while these gentlemen perform the duties of editors, many distinguished medical gentlemen will be employed to contribute the chapters upon the various diseases treated. We have not space to mention the many eminent physicians who will take part in writing the work. Suffice it to say that they are among the ablest of this country--East and West. There will be five volumes of the work, each one containing 1,000 pages. Beginning with February, a volume will be issued every four months until the whole number is completed.

The work will be sold by subscription only; and as it will be entirely an American work, written by gentlemen familiar with the climate and diseases of this country, it will be especially valuable to physicians of this country. As every disease will be exhaustively treated by a writer who has long given attention to it, the work will form by itself a complete library of literature upon medicine. We have no doubt the subscribers will be very numerous.